

The Rock – Chapter 1 – Far Out in Space

It wasn't a big rock, not as rocks go. It was barely 5km across. It had existed since the beginning of the Universe and had an orbit around the Earth's sun that lasted 100,000 years. The scientists missed it as it entered the Solar System. There weren't a lot of scientists watching the sky, not really. It wasn't a comet but rather an asteroid. Hence it had no tail to highlight its path. It wasn't until the object neared the sun that astronomers noticed the object and by then, it was too late. It was traveling at a speed in excess of 84,200 miles per hour, almost 140,000kph (39kps) to be exact. It was solid iron and nickel and was about to make its presence known on the third planet.

The distance from the Sun to the Earth is one Astronomical Unit, AU, and is about 150 million kilometers. Traveling at 140,000kph, it would take the rock 1,071 hours, about 44.6 days, to reach the earth. It was so little time to prepare. In the United States of America, two movies had been produced, "Deep Impact" (1998) and "Armageddon" (1998). They were stock movie fare and probably came to be as a result of some near misses by some near earth objects.

Near-Earth Objects (NEOs) are comets and asteroids that have been nudged by the gravitational attraction of nearby planets into orbits that allow them to enter the Earth's neighborhood. Composed mostly of water ice with embedded dust particles, comets originally formed in the cold outer planetary system while most of the rocky asteroids formed in the warmer inner solar system between the orbits of Mars and Jupiter.

The scientific interest in comets and asteroids is due largely to their status as the relatively unchanged remnant debris from the solar system formation process some 4.6 billion years ago. The giant outer planets (Jupiter, Saturn, Uranus, and Neptune) formed from an agglomeration of billions of comets and the left over bits and pieces from this formation process are the comets we see today. Likewise, today's asteroids are the bits and pieces left over from the initial agglomeration of the inner planets that include Mercury, Venus, Earth, and Mars.

As the primitive, leftover building blocks of the solar system formation process, comets and asteroids offer clues to the chemical mixture from which the planets formed some 4.6 billion years ago. If we wish to know the composition of the primordial mixture from which the planets formed, then we must determine the chemical constituents of the left-over debris from this formation process – the comets and asteroids.

By the time the scientists managed to convince the government that the Earth was in danger, the government had less than 30 days to prepare the country, indeed the world, that an ELE (Extinction Level Event) was about to happen. They still weren't certain exactly where the Asteroid would strike the Earth. In the northern latitudes, about the latitudes wherein lay the United States. But, where along that axis? The closer the object got, the better the calculation got and finally they determined that it would be somewhere in the western Pacific. It would generate a Mega-Tsunami, which would no doubt wipe out many of the Pacific Islands, including the Hawaiian Islands.

Huge landslides and the mega-tsunami that they cause are extremely rare – the last one happened 4,000 years ago on the island of Réunion. The growing concern is that the ideal conditions for just such a landslide – and consequent mega-tsunami – now exist on the island of La Palma in the Canaries.

In 1949 the southern volcano on the island erupted. During the eruption an enormous crack appeared across one side of the volcano, as the western half slipped a few meters towards the Atlantic before stopping in its tracks. Although the volcano presents no danger while it is quiescent, scientists believe the western flank will give way completely during some future eruption on the summit of the volcano. In other words, any time in the next few thousand years a huge section of southern La Palma, weighing 500 thousand million tons, will fall into the Atlantic Ocean.

But, this was no mere landslide; it was a rock 5km across that would strike the ocean at 140,000kph. Can you imagine the amount of energy involved in such a collision? I could calculate it for you, but I have no idea how much the Asteroid would weigh. I can tell you it would be a lot of energy.

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Scientists are people too and even scientists can make mistakes. It turned out that the mistake was a rounding error with significant consequences, but it wouldn't be discovered until 48 hours before the rock hit the Earth. President George Walker Bush was almost gladdened at the news, at least it would get everyone's mind off the faltering war in Iraq and the growing prisoner abuse scandal. Presidential candidate John Kerry was immediately dismissive of the President's announcement, asserting that it was merely a ploy to get everyone's mind off the faltering war in Iraq and the growing prisoner abuse scandal.

The discovery was made on May 31, 2004. That meant that the Asteroid, now dubbed 'The Rock' by the news media, would strike the planet on July 14, 2004. Adjusting for the international dateline made that July 15, 2004 in the western Pacific. After Bush made the announcement, people began to flee the Pacific coast in the US, heading for higher ground. They had 30 days, but a lot of people panicked. Some people just took off with their credit cards and ATM cards, never giving a thought to things like BOB's and guns and food. Others ran to the grocery stores and grabbed everything they could carry before departing. A lot of gun stores in Los Angeles and other coastal cities were looted, too.

Up in Palmdale, Gary, Ron and Clarence took the news in stride. They didn't panic; they soiled their drawers, but they didn't panic. The three men set about in a semi-orderly fashion to prepare for the ELE. Clarence found a diesel powered 6kw generator. Ron went to the gun store and bought a lot of ammo and all of the MBR's he could afford. All she had in stock was some Garand rifles, but she had a full pallet of the Korean surplus ammo. He bought it all and she took his cash, handed him the guns and hurried to wait

on the next customer. Whoa, no 10-day waiting period! She said screw it, all of her records would be underwater anyway if the ATF or the state of California checked.

Gary went for his favorites, rice and beans and flour and coffee. The only meats he bought were ham and some bacon plus all of the Spam he could carry. He also bought salt and pepper and dried onion plus yeast, sugar and Crisco. He didn't forget Ron and bought a case of Sweet and low packets. And of course, our 2-pack a day man bought cigarettes; lots of cigarettes and a package of 50 Bic lighters. Gar-Bear paid for the whole shooting match with a check drawn on his Iowa account. He wasn't sure if there was enough money there to cover the check, but the bank would either cover it or not. Costco took the check; they didn't have time to fool around checking. Everyone was writing large checks and the lines were pretty long.

Clarence went from one auto parts store to another until he had purchased every 5-gallon gas can in town. He filled some of the cans with gasoline, but most of them with diesel for his new generator. The men rented U-Haul trailers, loaded them and set off to the east, headed for the Continental Divide on I-40 in New Mexico. They were running too, but at least they were somewhat prepared. Gary brought his Coleman lanterns and oil lamps and all of the Coleman fuel and kerosene he had stored in his shed. His tent was old and probably full of holes, but it was shelter of a sort.

I-15 was bumper-to-bumper traffic, but when they got to Barstow and turned east, they lost about half of the traffic. It seemed that a lot of people were headed to Vegas. The Continental Divide in New Mexico is just a ways east of Gallup and is easy to locate. There is a town there named, strangely enough, 'Continental Divide'. It took the men from July 15th until July 18th to get to Gallup. That's where the road was blocked, right there in Gallup. Apparently a lot of other people had the same idea.

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"Dang it, partner," Ron said to Gary, "We ought to head north on 666 and go to Robert's"

"Not on your life Ronald," Gary said, "I don't to want to be on no highway numbered 6-6-6 when The Rock hits. Let's just find some place to make camp and sit and wait it out. After it hits, we can probably head back to what's left of Palmdale."

"Gary's got a point Ron," Clarence added, "I don'ts want to be on no highway with the mark of the beast on it."

The men decided go up to a little burg name of Mexican Springs, just north and west of Gallup and camp out. They wanted to get away from the crowds of people before they had to use those rifles to protect their food supplies. They found an out of the way location and pitched the tent. Sharon had brought some cloth and needles and thread and they patched the holes and rubbed the cloth with wax, it was the best they could do.

They had a transistor radio and 4 bricks of nine-volt batteries from Costco, none of them were all that well prepared. Clarence had picked up some seeds and a bag of fertilizer, but he didn't know an heirloom seed from an heirloom quilt and he had a combination of heirloom and hybrid seeds.

It's time to mention the families of the three men. Gary had insisted, almost at the point of a gun, that Amy and Lorrie and their families accompany them. Udell had declined; saying that the Asteroid would probably miss the planet anyway and there was his family to think about. Gary hadn't argued any further, that was one way to get rid of Udell. So Amy and Audrey and Junior had piled into David and Lorrie's van and they followed along. Kevin had been none too happy about making the trip, but decided he couldn't swim THAT well and had given in. John just packed up his clothes and got in the car. The churches around the world were doing a land office business. Yeah, like you could pray The Rock away.

The waiting was beginning to get to all of them. It was getting hard, just sitting there waiting for The Rock to strike. Gary spent his free time trying to calculate how far the beans and rice and other supplies would carry them. ELE was just another term for TE-OCAWKI. And, this wasn't some dime novel; this was the real thing. He had 10 100-pound bags of pinto beans and a like quantity of rice. He also had 10 100-pound bags of flour and 100-pounds of sugar. Coffee was probably going to run out and cigarettes were so expensive that they would be the first things to go. He, Ron, Linda, Clarence and Amy smoked. They should have stopped at the Res and picked up more smokes but they didn't have much money. Oh well, they had more than enough to get them through the big event and back to Palmdale.

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They heard on the radio that Bush had declared martial law. People were actually staying behind and looting. They'd better be able to swim pretty good! The government tried to stop it but as The Rock approached, they pulled the troops out and sent them scurrying to the nations interior. The folks on the east coast weren't the least bit excited; they figured that the tidal wave wouldn't affect the east coast. The government kept warning them to take cover and they kept ignoring the government. As it turned out, it would not have done them any good to run and hide.

Two days before the impact a scientist who had made a different set of calculations finally made his voice heard. The latitude was right, but a rounding error had caused the estimated impact point to be a bit further east than what he believed the real impact point to be. The other scientists rechecked their calculations and they were horrified to discover that the man was right. The Rock was not going to strike water, but further to the west. In the general area of a city named Beijing. Bush could see no point in warning the people. This was indeed an ELE. And, they didn't shoot off any nuclear missiles either, trying to intercept and destroy the Asteroid. It was too big for one thing and the missiles wouldn't reach that far for another. The idea of sending a Space Shuttle was

similarly discarded as being totally impractical. That was the stuff movies were made of, not how the world really worked.

Gary remembered another disaster movie starring Sean Connery and Natalie Wood called 'Meteor' but that was also an impractical solution. In the first place, the US and Russia would have had to have actually had secret missile platforms in space. And, in the second place, how could you get a rocket motor to run for an hour like those did in the movie? And in the third place how could you get Bush and Putin to agree on anything? No, there was going to be no last minute miracle; The Rock was going to hit the Pacific and that was that.

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In the past 600 million years there have been five major mass extinctions that on average extinguished half of all species. The largest mass extinction to have affected life on Earth was the Permian-Triassic one that ended the Permian period 250 million years ago and killed off 90% of all species. The last such mass extinction led to the demise of the dinosaurs and has been found to have coincided with a large asteroid impact; this is the Cretaceous-Tertiary extinction event. There is no solid evidence of impacts leading to the four other major mass extinctions, though many scientists assume that they are at least related to impacts.

In 1980 Luis Alvarez and his son Walter led a team from the University of California, Berkeley that discovered unusually high concentrations of iridium, an element that is rare in the Earth's crust but relatively abundant in many meteorites. From the amount and distribution of iridium present in the 65 million year old "iridium layer", the Alvarez team later estimated that an asteroid of 10-14 kilometers must have collided with the earth. This iridium layer at the K-T boundary has been found worldwide at 100 different sites. Multidirectionally shocked quartz (coesite), which is only known to form as the result of large impacts or atomic bomb explosions, has also been found in the same layer at more than 30 sites. Soot and ash at levels tens of thousands times normal levels were found with the above.

Probably the most convincing evidence for a worldwide catastrophe was the discovery of the crater which has since been named Chicxulub Crater. This so-called smoking gun is centered on the Yucatan peninsula of México and was discovered by Tony Camargo and Glen Penfield while working as geophysicists for the Mexican oil company PEMEX. What they reported as a circular feature later turned out to be a crater estimated to be 180 kilometers in diameter. Other researchers would later find that the end-Cretaceous extinction event that wiped out the dinosaurs had lasted for thousands of years instead of millions of years as had previously been thought. This would be the final piece of evidence that convinced the vast majority of scientists that this extinction resulted from a point event that is most probably an extra-terrestrial impact and not from increased volcanism and climate change (which would spread its main effect over a much longer time period).

It was the lack of high concentrations iridium and shocked quartz which has prevented the acceptance of the idea that the Permian extinction (so-called mother of mass extinctions) was also caused by an impact. However, during the late Permian all the continents were combined into one supercontinent named Pangaea and all the oceans formed one superocean, Panthalassa. If an impact occurred in the ocean and not on land at all, then there would be little shocked quartz released (since oceanic crust has relatively little silica) and much less material.

Although there is now general agreement that there was a huge impact at the end of the Cretaceous that led to the iridium enrichment of the K-T boundary layer, remnants have been found of other impacts of the same order of magnitude that did not result in any mass extinctions, and in fact there is no clear linkage between an impact and any other incident of mass extinction.

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During the late morning hours of July 14, 2004, the Asteroid hit. The whole earth shook at the impact. Millions of tons of earth were thrown skyward and the new period of extinction began. Although this piece of rock was far smaller than the rock that struck the Yucatan peninsula of Mexico, and the destruction was on a scale several magnitudes of order below the event 65.5 million years earlier, mankind was going to have to struggle to survive, especially in the northern latitudes.

Those that were standing at the campsite were thrown off their feet. Ron got up and dusted himself off.

“Jeez, you wouldn’t have thought that an impact, no matter how large, striking the water would cause an impact like that,” he exclaimed.

“Shut up Ron,” Gary said, “It’s coming on the radio.”

They sat and listened as the announcer revealed that the Asteroid had struck not the Pacific Ocean as everyone had expected, but China in the area of Beijing. Mankind faced a far worse fate than anything that Carl Sagan had ever suggested in TTAPS Study on the subject of nuclear winter. They weren’t going back to California they decided right then and there, they were going south. How far south they hadn’t decided, but they were going south. They sat for several days as the traffic turned around and streamed back to California and points west. Then, they did the most unusual thing. They turned thieves.

The first thing they did was hit every sporting goods store they could find and get bows and arrows and spare bowstrings. Then, they went looking for seeds of all kinds. Finally, they went to the Res. The cigarette store had been cleaned out but not the storeroom. The owner or employee, they had no idea who he was, lay dead on the floor. They cleaned out the storeroom and headed toward Albuquerque to pick up I-25 southbound.

They swapped out the small U-Haul trailers for larger U-Haul trailers; there wasn't any-one around anyway.

They continued to shop for primitive weapons and hand tools and seed and food all the way to Albuquerque. They gathered more gas cans and diesel fuel. They would need it for a while so they could adjust to primitive living. But they knew that eventually, they wouldn't have electricity any more. The diesel fuel could be burned in the kerosene lamps, they hoped. The men were in their sixties and didn't know if they would live to see the sky clear, probably not. But they had to provide for their families. And they needed some place to go where they could keep at least a little warm. Gary suggested that they go to the Carlsbad Caverns. A cave, he said, was the temperature of the average temperature for the area. They might not want to stay there, but it wasn't that far off and the Caverns were only about 15 miles north of the Mexican border. It was a starting place, he said.

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Just to give you a perspective, Beijing lay at latitude of 40.47 degrees north. Seattle lay at latitude 47.68 degrees north and Whites City, the home of Carlsbad Caverns, lay at latitude 32.48 degrees north. Everything north of the 30 degrees north and perhaps some distance south was going to be covered by the mass of dirt for some time to come.

Nuclear winter is the environmental devastation that certain scientists contend would probably result from the hundreds of nuclear explosions in a nuclear war. The damaging effects of the light, heat, blast, and radiation caused by nuclear explosions had long been known to scientists, but such explosions' indirect effects on the environment remained largely ignored for decades.

In the 1970s, however, several studies posited that the layer of ozone in the stratosphere that shields living things from much of the Sun's harmful ultraviolet radiation might be depleted by the large amounts of nitrogen oxides produced by nuclear explosions. Further studies speculated that large amounts of dust kicked up into the atmosphere by nuclear explosions (or an asteroid impact) might block sunlight from reaching the Earth's surface, leading to a temporary cooling of the air.

Scientists then began to take into account the smoke produced by vast forests set ablaze by nuclear fireballs, and in 1983 an ambitious study, known as the TTAPS study (from the initials of the last names of its authors, R.P. Turco, O.B. Toon, T.P. Ackerman, J.B. Pollack, and Carl Sagan), took into consideration the crucial factor of smoke and soot arising from the burning petroleum fuels and plastics in nuclear-devastated cities. (Smoke from such materials absorbs sunlight much more effectively than smoke from burning wood.) The TTAPS study coined the term "nuclear winter," and its ominous hypotheses about the environmental effects of a nuclear war came under intensive study by both the American and Soviet scientific communities.

The basic cause of nuclear winter, as hypothesized by researchers, would be the numerous and immense fireballs caused by exploding nuclear warheads. These fireballs would ignite huge uncontrolled fires (firestorms) over any and all cities and forests that were within range of them. Great plumes of smoke, soot, and dust would be sent aloft from these fires, lifted by their own heating to high altitudes where they could drift for weeks before dropping back or being washed out of the atmosphere onto the ground.

Several hundred million tons of this smoke and soot would be shepherded by strong west-to-east winds until they would form a uniform belt of particles encircling the Northern Hemisphere from 30° to 60° latitude. These thick black clouds could block out all but a fraction of the Sun's light for a period as long as several weeks. Surface temperatures would plunge for a few weeks as a consequence, perhaps by as much as 11° to 22° C (20° to 40° F).

The conditions of semidarkness, killing frosts, and subfreezing temperatures, combined with high doses of radiation from nuclear fallout, would interrupt plant photosynthesis and could thus destroy much of the Earth's vegetation and animal life. The extreme cold, high radiation levels, and the widespread destruction of industrial, medical, and transportation infrastructures along with food supplies and crops would trigger a massive death toll from starvation, exposure, and disease. A nuclear war could thus reduce the Earth's human population to a fraction of its previous numbers.

A 1980 article by Luis W. Alvarez and his associates, which reported finding a distinct clay layer at the Cretaceous-Tertiary (C-T) boundary containing the element iridium whose isotopic composition was characteristic of meteorites rather than terrestrial rocks. They suggested that this was evidence of the impact of an asteroid about 10 kilometers in diameter 65 million years ago.

They hypothesized that such an impact would darken the skies with dust, which might reduce surface temperatures enough to cause the mass extinction of the dinosaurs and many other species then living, the fossil record of which seems to coincide with the C-T boundary. Further work has found such layers at many sites around the world and tended to confirm the impact hypothesis. There is still controversy concerning where the impact occurred, to what extent it caused the extinctions during this era, and whether the most important climatic and biological effects were the result of darkening, cooling, heating, flooding, or other mechanisms.

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Anyway, you have the idea. None of the men were particularly cheerful; they had way too much on their minds. Gary was quite the watcher of educational channels on the TV and he knew about nuclear winters and ELE's and all manner of things. He had calculated that they had food for a couple of years. They had a lot of seed, too. If they could just get through the first year, maybe some of the dirt would be out of the atmosphere, especially this far south.

They were going to have to adapt and not depend on technology for very long. They gathered solar chargers and rechargeable 9-volt batteries for their radios, but would there be any radio stations to listen to? Would there be enough sunlight to recharge the batteries? And, what were they going to do when someone else showed up at Carlsbad Caverns? Let them in or shoot them and take their food? This was serious business, and they had a lot more questions than answers.

One issue was resolved for them early on. When they got to Carlsbad Caverns, they discovered that they weren't the first people with the idea and found themselves being driven off by gunfire. That resolved a lot of their questions right then and there. Gary said he remembered seeing some TV program that talked about the dozens, perhaps hundreds of caverns in the area and they set about looking for their own cave.

They finally found the ideal location. It wasn't a huge cave as far as they could tell, but it was very defensible. They unloaded the trailers into the cave and hauled the trailers back to Whites City and dumped them. They picked up some odds and ends like rope and wire and nuts and bolts and hand tools and lots of winter clothing and headed back to their new home.

They soon discovered that the temperature of their cave was 56° F. Cool, but manageable. They used some of the odds and ends to rig a chimney to exhaust the smoke from their fires and such to the outside. It wouldn't do to suffocate them. They gathered what firewood they could find and piled it near the cave. They needed water and eventually found a place they would later learn was called Rattlesnake Springs.

Over the years the 1,000-meter stream and wetland system at Rattlesnake Springs has been sustained by the remaining un-diverted spring flow. Originally a marsh, this area has been altered by human development. Today this green oasis provides habitat for a wide variety of species. The oasis is bounded by the gently rolling Chihuahuan Desert plains, dotted with creosote bush, yucca, mesquite, and snakewood. These plains are framed by the magnificent backdrop of the Guadalupe escarpment. When considered against the backdrop of declining riparian habitat in the desert southwest, this stream/wetland complex constitutes an extraordinary natural resource of state and regional significance.

The area, however, is much more than just a water source for the park or a natural area of note. The spring was used by prehistoric peoples and historic Indian groups, soldiers, travelers, and settlers. When Henry Harrison homesteaded the area around the spring in the 1880s, he developed the spring, built an irrigation system for his fields, constructed an adobe home, and planted trees and orchards. Following acquisition by the National Park Service, the area was further developed by the Civilian Conservation Corps during 1938 to 1942. They were responsible for many area improvements including the rock wall of the spring pond, the ranger residence, and the planting of cottonwood trees. Rattlesnake Springs was also used by the military during World War II. During more recent times, the Park Service has further developed the spring area. For its significant

role in our nation's history, this area was placed on the National Register of Historic Places in 1988.

Now, they had water and wood to go with their food. Eventually, all manner of wild and domesticated animals would migrate south in search of warmth, but that is getting ahead of the story.

"This didn't turn out to be too bad of an idea Gar-Bear," Ron said. "We have food and water and fuel for a fire. All the luxuries of home."

"Hogwash," Gary replied, "We need to get back into that town and find some mattresses to sleep on. This ground is cold and hard."

"I agree with you Gary," Clarence said, "These old bones of mine is getting mighty sore. And my feets is cold. Man, when your feets is cold, you is cold all over."

"Alright, but we'd better go prepared for trouble," Ron agreed, "But we're going to have to settle with some sort of bunk beds, there isn't that much free floor space."

The men pulled the brush off of one of the cars and headed back to town. They hooked up to one of the U-Hauls they'd abandoned earlier and cleaned out a furniture store. While they were at it, they checked around the community and took anything else that they thought they could use.

They didn't plan to come back to town for a while. Already the dogs were turning feral and this was not a nice place to be. They got blankets, but didn't bother with sheets; the sheets would be too much trouble to wash. After they unloaded the furniture and got David's kids to haul it to the cave, they hauled the trailer some distance off and dumped it. They drove back to the cave area and covered the car with brush.

"This isn't that bad of a place," Clarence said, "I just wonder how long we're going to have to stay here."

"I have no idea," Gary said, "But one of you had better do something to make sure that no rattlesnakes get into this cave. They give me the creeps."

They scrounged around and found a partial roll of ¼" wire mesh and built themselves a door for the cave. They had picked up anything they thought they might be able to use on their way to Whites City, even a part of a roll of ¼" mesh. They might not be too well prepared, but they were expert scroungers. Anything and everything that even hinted that it might have some value had been taken. You never knew when it might come in handy. They built the doorframe out of extra mattress slats one of them had picked up at the furniture store. They didn't need any mattress slats, but if nothing else, they would burn. Turned out to be pretty handy.

The Rock – Chapter 2 – A Little Closer to Home

Since The Rock was $\frac{1}{2}$ the diameter of the asteroid that hit Yucatan, it had a lot less energy. The volume of a sphere is $(4/3) \pi r^3$. I'll do the math for you. The volume of the sphere that hit Yucatan was 8.125 times larger than the volume of the sphere that hit Beijing and the Yucatan rock left a crater of about 180 kilometers in diameter. The crater in China was proportionally smaller at about 22-23 kilometers in diameter. That was still one hell of a lot of dirt.

The blast wave from the strike was tremendous and billions died. Millions more would die when the cloud of dirt filled the sky. It was already beginning to darken in the northern sky and the darkness was moving steadily towards the south. At least, that was all the three old men could tell.

No doubt it was spreading to the north as well. It was getting colder outside and it was about the first of August, normally a hot month, especially in the desert near the Mexican border. They had to come up with something to cover the door besides the $\frac{1}{4}$ " mesh. Winter was going to be pretty cold. It was getting colder by the day and they decided that they were going to have to risk another trip to Whites City to get a door covering, feral dogs or not.

"Darn, it is August and it already feels like February in Palmdale," Ron complained.

"I remember the weekend I decided to move to California," Gary responded. "It was 35° to 40° F below zero and the wind was blowing 50 miles an hour. Now that was cold. But as dark as that sky is getting, we could have temperatures like that this year too. We'd better figure out some way to come up with some parkas or something."

"Parkas?" Ron snorted. "In the desert in southern New Mexico in August? Fat chance."

"We could try Carlsbad or Artesia or Roswell," Clarence suggested.

"If we get to Roswell, I want to see the flying saucer," Gary joked.

"You're going to be seeing stars if you don't stop clowning around," Ron snorted.

They didn't find any parkas. They found pre-hung doors and insulation, but no parkas. They drove north to Artesia but couldn't find any parkas there either. They decided that they might have some luck in Alamogordo because the city was nearly a mile high. The further north they got, the colder it got and when they began to move up in elevation to the west out of Artesia, it was even colder.

They spotted a sign for a town named Cloudcroft and a store that sold ski gear. That was their ticket and they freely helped themselves to all kinds of cold weather gear. Not a single member of their group skied, but they also took ski boots and skis and poles.

Who knew how cold it would get this winter and the elevation of their cave was nearly the same as Palmdale, about 2,800 feet, they figured.

These 3 men were the consummate scroungers and they left nothing behind they could use and carry. Actually they should have brought a trailer. They decided to return to the cave and come back the next day. There were good pickings in Artesia and more they could use in Cloudcroft. But, as the day wore on, it just kept getting colder. They did stop in Artesia and switch the car (Gary's) for a diesel pickup. It had a tow ball already and 4-wheel drive and even a rifle rack in the back window. By the time they got back to the cave they had the heater going full blast.

"I'm freezing," Clarence complained.

"If you're freezing now Clarence," Gary asked, "What are you going to do when it gets cold?"

"How cold is it going to get?" Clarence asked.

"I have no idea," Gary said, "But it is only August so go figure."

The men put in an inner door and an outer door and stapled insulation on the inner door. They tried to stuff as many cracks around the door as they could and complained because God hadn't made the entrance square. It took most of the night to finish the project and they decided that the trip could wait a day because they were cold and tired.

When they did take off for Artesia, it seemed to be colder. Maybe it was just the wind, but it really did seem colder. One of the first things they scrounged in Artesia was an outdoor thermometer. It was one of those round dial things and went from -40 to +140. Somehow they doubted that they would need the upper limit. Boy, were they in for a surprise. The impact had caused a lot of fires, releasing greenhouse gases into the atmosphere.

With the entrance sealed off to the cold as well as snakes, they were a lot more comfortable. They need not have worried about snakes, not at this time. The snakes had hit their dens early when it had begun to get cold. The snakes hated the cold weather worse than the men and their families. They were hungry too, but they could only have beans and rice or rice and beans. It didn't really seem to matter what order they went on the plate; they tasted the same either way. But it was food and it was hot, and they were thankful.

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They had even brought their pets. Gary and Sharon had 5 cats ranging in age from 1 year to 16 years and Gary's favorite, Missy, a 6-year-old Bichon Frise. Ron and Linda had her two Shelties and three cats. They made sort of a pen for the dogs so they wouldn't have to step into anything in the night. That was only about ½ working, Missy

seemed only to want to go when she wasn't in the pen. Clarence and Lucy had no pets and couldn't get over the way Ron and Linda and Gary and Sharon treated the animals. It was almost as if they were their children.

Even after they closed up the entrance to the cave, they felt a draft. They made a note to look for some sackrete and mortar in the doors. Gary said that caves sometimes had cracks in the rock and they'd never be able to find all of them. Water, he said, carrying dissolved minerals percolated down through the cracks and formed stalactites and later stalagmites.

"What's the difference and how do you know which is which?" Ron asked.

"That's easy," Gary said, "Just remember that a stalactite has the extra 'T' in its name and that the 'T' is for top."

The next day they hooked the trailer to their 'new' pickup and headed out. They decided to start away from the cave and work their way back. That way, if they had a good day scavenging they wouldn't have to go so far the following day to resume their task. Their emphasis remained on more primitive bounty and anything besides beans and rice. Sharon was about ready to revolt. In Cloudcroft, they got the additional ski equipment they needed. They also cleaned out a convenience store of the things that had been overlooked.

They moved next to Artesia and found a little more food to add diversity to their diet, a lot of vitamins, some medical odds and ends at a pharmacy and the like. They had broken into the pharmacy's locked drug room and picked up every prescription drug they used. They needed insulin for Gary and Kevin; their supply was limited, plus a couple of dozen different prescription drugs that they took. They ended up with quite a haul. They didn't have a lifetime supply, but they were far better off.

Well, that's not exactly true, now is it? Without their prescriptions, they could die, so maybe you could measure their lifetime by the quantity of drugs they had on hand. It appeared that they were going to have to explore that cave of theirs to see how much room they had to store things. Insulin, by the way, can be stored at room temperature so long as the bottle remains sealed.

They also found several bags of sackrete and a couple of trowels. The next day would be devoted to storing their goods and sealing up the entrance. They only unloaded the sackrete, trowels and the food when they got home after dark. After dark? It was only 4pm, and it was pitch dark.

After supper, they got into a discussion of the Dark Ages. Gary insisted that they were more to the Dark Ages than a decline of society. He fairly insisted that he'd seen a TV program where they suggested that the Dark Ages were really dark. They couldn't agree on the Dark Ages and ended up using the other term, the Middle Ages. But, it made for a lively conversation.

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They got the teenagers to explore the cave while they put mortar around the doors the next day. They decided to scavenge one day, rest the next and repeat the cycle until the snows came. Snow in September? Or, was it still August? The men realized that they weren't sure of the date. Their watches gave them the day number and name, but what month was it? That was a project for their wives. The women seemed to have perfect memories, especially for every mistake they made. Oh, Sharon was grateful for the food, but mentioned how good a beefsteak and a baked potato would taste.

The cave had a lot more room than they realized. One of the passageways opened into a large room so they now had a storehouse. This particular cave was fairly dry, too. They all got together and made a list of specific things to look for the next day. Diesel fuel was on the top of their list. They had the generator, but hadn't used it because it would eat through their fuel far too fast. The feral dogs were getting to be more of a problem, but they figured once the snows came that would resolve itself. They wouldn't be going anywhere and if it got as cold as they suspected it might, neither would the dogs.

They took all three vehicles on this trip and got David's boys to ride along as shotgun. In town, they hooked up to the trailers one last time and set out to hunt for things they could use. They found a few bags of potatoes, but no steak. They swapped out the two cars for pickups and they found some diesel fuel. They had to use a hand pump, but they filled the pickups' tanks. They came across some shotguns in a sporting goods store and loaded them with #6 shot to defend against the dogs. By the end of the day, they were cold and tired and had pretty much cleaned out anything useful. On the way back to the cave, they almost ran into a cow. Where had she come from? There would be beefsteak after all!

It started to snow. The wives told them it was Labor Day. That was about right; they had labored pretty hard that day trying to find things they could use. They worked until everything was stored in the cave, butchered the cow and had the first real meal in how long? The cow would have been better if they could have aged the beef a little, but it would get aged plenty well before they used it up. Jerky was pretty much out of the question, but it was getting cold enough outside to store the meat in one of the trailers. They broke it down the meat the best that they could. Gary had cut meat when he was in college, but that had been so long ago. Besides, they didn't have power saws so they just made everything boneless and saved the bones for soup.

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Our group of survivors was very lucky. The death toll was mounting in the northern hemisphere as the winter came early in 2004. The smart ones did as the men from Palmdale did; they went primitive and didn't count on modern technology to save them. And, they moved south. A lot of people had been caught off guard by the land strike.

The government was in chaos. And, after the strike, most people returned to their homes, no longer fearful of the wall of water. But the smart ones, the real survivors, picked up their things and headed south.

Bush had recalled American troops from all over the globe. Suddenly any interest he had in a war on terrorism seemed so useless. Obviously the election was off, but if Kerry really wanted the job, Bush was prepared to give it to him. There were no troops to recall from Korea, the blast wave from Beijing had seen to that. Neither were there many left living in the Japanese Islands.

But closer to home, in Kosovo and Iraq the troops were already streaming to ports, waiting for ships to bring them home. The Navy evacuated Afghanistan, leaving the heavy equipment sitting. This wasn't the usual doomsday scenario that writers wrote about, e.g. a post terrorist attack or post nuclear exchange. The only fighting going on was over food and shelter.

By the time Bush managed to get the troops back home, it was well into September and winter. Derek was among those who returned to the US. He knew that Mary would have taken the kids and headed for her folks in Arkansas. He suspected, rather than knew that they would either be in Arkansas or further south in Louisiana. He grabbed an M-4, an M-9, a lot of ammo and MRE's, loaded the whole lot into a Humvee and headed for Arkansas, towing a trailer of fuel. It was a daring move, and pretty risky, but he figured that the Army had more to worry about than a missing soldier and a Humvee. He only stopped between Ft. Stewart and Arkansas to refill the tank and empty his. Mary and the kids were at her folks, thank God.

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The entrance to the cave was about 20' up the face of a canyon. They positioned the trailer holding the meat as close to the cave as possible. The snow was seemingly non-stop and they speculated that the trailer would end up buried in snow, making a perfect freezer. It was only about 50' from the cave entrance to the trailer so they worked in the snow and built sort of a canopy between the trailer and the entrance. It was a wise decision; the snow would reach the level of the door before the snows were over. They were already snowbound and they knew it was going to be a long winter. Their last act was to siphon most of the diesel fuel from the trucks' tanks and store it in pails in the back of the cave to use in their oil lamps.

The light in the cave was poor, limited as it was to the oil lamps. With the snow, they couldn't get to Rattlesnake Springs either; so they melted snow and let it settle before adding a little bleach to the water. They should survive this first winter if they didn't get cabin fever and kill each other off.

Further exploration of the cave disclosed more rooms and each family took a room as a bedroom and their away space. The original room would serve as a sort of communal meeting center and dining room. They were learning to adapt. To entertain themselves,

they entered into long discussions, talking about anything and everything. You could sure tell who had been a fan of the History Channel.

That cow that they happened across and had killed proved to be a real boon to the group. They would pull a bone from the trailer and make a large pot of soup in a recovered stockpot and they stretched their rations tremendously. Gary had his Rambo knock off knives and Ron latched onto Rambo 2 with its black blade. Gary stuck with Rambo 1 and poor Clarence was left to carry the machete sized Rambo 3. The winter wore on and they marked off the days on a drug store calendar.

They avoided controversial subjects and thus most of the disagreements that would normally arise among a group of people holed up in a cave. They had their disagreements, but they were few and far between. Mostly the men planned what they were going to do when summer came, if it ever came.

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Gary suggested that the snow would remove a lot of the dirt from the lower atmosphere. He also suggested that if there had been a lot of fires and the atmosphere was filled with greenhouse gases that summer, however brief, would be hotter than a \$3 pistol. Although the dirt in the atmosphere was pretty much limited to the northern hemisphere, the whole world was going to suffer because the atmosphere was indeed filled with huge volumes of greenhouse gasses. But, they didn't know that stuck in their cave there in southern New Mexico.

Trapped, as they were, inside of a cave also affected their sense of time. It was forever nighttime inside their new rock home. The women solved that problem by dimming the lights during the real night creating an artificial day and night. During these artificial days the men decided that David and one of the boys should be their meat gatherers.

They would try to find more fuel cans, that diesel really stunk, and food and anything else of value. The other three boys would take the shotguns and the Garand's and ride with the three men. John volunteered to go with David and Kevin complained about the cold. The more things changed, the more they stayed the same. Ron had had about enough of Kevin and he told the young man to get off his dead butt and help, they weren't Kevin's servants.

They made lists; it was one of Gary's favorite things to do. Ron would look for pharmaceuticals, Clarence for food and Gary for fuel and the odds and ends. But they each had a copy of each other's list, so they wouldn't have to duplicate efforts. They also talked about moving to El Paso or to the Big Bend country, but decided against it. Where they were was a known commodity. Who knew what they would be up against if they moved further south? A lot of the surviving Americans were whom they would be up against, but they didn't know that.

David decided that he would try and find what had been domesticated livestock. Rather

than kill them off, they would try and herd them back to the cave and pen them up to be slaughtered later when it got cold again. Gary told Ron to make sure he got more vitamins and some antibiotics. They'd been lucky so far, no one had gotten more than a cold, but you never knew. It had been colder than anyone except Gary and Sharon could remember during February. March had been warmer and April had been positively toasty, rising above the freezing mark.

They decided that there wouldn't be much of a growing season this summer of 2005. They would limit themselves to planting the quick growing crops. They sorted through the vegetable seeds and selected those with the shortest growing seasons. They would plant green beans of course; they took 55-70 days to mature. Most of the varieties with really short growing seasons were hybrids and that didn't bode well for following years. Gary added seeds to his list.

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When the snow finally decided to melt, it went quickly. The wives went to Rattlesnake Springs to plant the garden and the men set out to scavenge. The first thing the men noticed was more people, not all of them friendly. The second thing they noticed was that everything had been picked over pretty well. There wasn't any food to be found. Clarence did find some drugs and rather than figure out what was what, just took the entire supply. Pain pills, tranquilizers and antibiotics were in the shortest supply they would come to learn.

After Ron and Jerome had a run in with a bunch of people, they decided to take everyone in a single pickup. Gary had found a lot of containers ranging from gas cans to mason jars. He brought them all back to the cave. He also found a pressure cooker and some canning supplies. They tried to avoid people as much as possible, but that was getting harder to do. The sky was noticeably lighter, sort of like a light overcast.

They gave up scrounging after they got enough drugs and canning equipment, preferring to stay closer to the cave. They had enough diesel fuel for another year and the vegetables were sprouting so they concentrated on the more mundane tasks like gathering wood, pulling weeds from the garden and the like. Most of the livestock had died off during the long cold winter, but David came back herding two steers. Some of the crops they planted did amazingly well when it got warm and then warmer. Others couldn't take the heat and they harvested what they could of the food and canned it.

They did the canning right out in the open at the base of the ledge that housed their cave. None of them had ever tried canning with a pressure cooker over an open flame and it was a real learning process. They finally got the hang of it and somehow managed to avoid over pressurizing the canner.

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"Look over there," Clarence whispered, pointing.

Ron looked and saw an Elk. They couldn't very well herd an Elk, so they stalked it and shot it just before it spooked.

It was the 4th of July 2005 and they had a good feast on that Elk. Sharon, Linda and Lucy canned what they didn't eat and they gained a little more variety for their diet. Mostly, however, they just stood around, guarding that garden. If they couldn't grow it or hunt it, it wasn't going to be there to eat during the coming winter. They found a dead Cottonwood and set at turning it to firewood. A chainsaw would have made short work of the project, but axes, wedges and mauls plus a metal bow saw were all they had. It was a lot of work sawing through the trunk of that tree. Still, it was a big tree and if they used the wood wisely, it would last them quite a while. They soon learned what lousy firewood Cottonwood made.

Towards August they noticed a group moving into one of the other caves. Well now, it might to be nice to have neighbors and then again maybe not. One of David's boys was off exploring the cave further. Ron, Gary and Clarence got their wives and their rifles and went to check on the newcomers. They approached the new people cautiously, but with no preconceived notions. When they got near to the people Ron handed his rifle to Linda as a signal that they were friendly and hollered to the people. One of the men motioned for Ron to come forward.

Ron introduced himself and briefly explained that they lived in a nearby cave and had for about a year. The man introduced himself as Aaron Little and his wife Mary. They had two teenage daughters, Rhonda and Rita. The second couple was Jacob and Ruth Johnson and their teenage daughters were Esther and Naomi. The third couple was Bob and Shirley Jones and their teenage children were Bobby and Judy. The people turned out to be from the Denver area, Englewood to be precise. They had been busy putting together survival supplies when the splash turned strike had occurred. They continued to gather supplies but found themselves cut off by snow before they could head south.

They told of how terrible the winter had been in Denver. Had they not all had fireplaces, they claimed, they would have frozen to death. When the snows finally cleared, the people had headed south on I-25. When they got to Las Cruces, they had turned east and headed for the Caverns. They said they had met a lot of unfriendly people along the way.

"If there's anything we can do to help," Ron said. "Let us know. We don't have much but we're willing to share."

"Ron we're pretty well stocked on food and equipment," Aaron said, "What are you doing for water?"

"There's a spring over that way," Ron said and pointed. "We have a small garden planted and have been getting our water and wood there."

“Ok, any problem if we share the water?” Aaron asked.

“Help yourselves,” Ron said. “How about we get some of our kids to help your kids move your things?”

“We’d appreciate that,” Aaron said.

About that time, David’s son, the cave explorer, came walking out of the cave the new folks were moving into.

Ron laughed. “I guess we’re closer neighbors than we thought, Aaron,” he said, “The boy there was exploring our cave. It appears that the caves are connected.”

Everyone pitched in and helped the new folks from Denver move in. Ron noticed a chainsaw, but said nothing. The people had indeed been gathering survival supplies. They must have cleaned out a camping store or two from the looks of all the freeze-dried food. They were pretty well armed, too. They had some of the M1A’s, some AR-15’s, some Mossberg shotguns and .22 rifles. The only thing they appeared to be short of was gasoline. Ron made of note of that too; they had 7 5-gallon cans of gasoline that they didn’t use.

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“Those folks are a lot better prepared than we were,” Clarence said. “Did you see the chainsaw?”

“Yes, but I only saw a 5-gallon can of gas for the saw,” Ron said, “I think we have the basis for some bartering.”

“How much sackrete do we have left?” Gary asked. “The entrance to their cave is pretty large.”

“I think there is some left Gary, thinking of another trade good?” Ron ventured.

“Of course. They’re going to need the sackrete to close up that entrance and gas for the chainsaw,” Gary smiled. “I think we are going to get to be good friends with those folks.”

“We need to get to know them a lot better before we start telling them too much,” Clarence cautioned.

The next day Ron ran into to Bob at the spring. They got to visiting a little and Ron learned that the three couples were not only neighbors, but the three men had worked for Qwest, the phone company, in Englewood. The men had been friends since grade school and frequently hunted and fished together. They had been reasonably well prepared before The Rock burst upon the scene but had taken time out to buy, beg and

'borrow' as much as they could after Bush's announcement. Bob mentioned that Bush had managed to get our troops home from Kosovo and Iraq. That had been the last news they'd heard before the TV and radio went out.

Ron had just learned two valuable things: 1) the men were scavengers the same as themselves; and, 2) the troops got home from Kosovo. He hurried back to the cave to give Gary the good news.

"What's the best news I could give you in the world, Gar-Bear," Ron toyed with Gary.

"I don't know, some Hollywood starlet was hot for my bod and I could do something about it?" Gary laughed not realizing what Ron was getting at.

"How about Bush got the troops out of Kosovo and they all made it home?" Ron said, "I'll bet that beats the hell out of any bimbo," Ron replied.

"That means that Derek made it home," Gary said excitedly. "I sure hope that he got to Mary and the kids."

"I wouldn't put it past him," Ron said, "Probably took off for Iowa the minute he hit the states."

"Arkansas, Ron; that was where Mary and the kids told me they were heading," Gary related, "So I'd guess he's with his family in Arkansas. And you're right, that beats the hell out of any other news you could have given me. I've got to go tell Sharon."

Ron had also dropped a hint to Bob about cutting firewood, explaining how hard it had been for them cutting wood with hand tools. The seed was sown, now it was time to see if it bore fruit.

The little garden was doing pretty good. They used the eyes out of their potatoes for potato 'seed' and the plants were doing pretty fair in the heat. Ron didn't suppose that they would get many big potatoes this year, but if the growing season got longer next year...

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"I ran into that Ron Green at the spring, Aaron," Bob said. "Those folks are from Palmdale, California."

"Did you tell them about what we heard about Palmdale?" Aaron asked.

"No, but when I mentioned that Bush had the troops home from Kosovo, that Ron sure got excited," Bob said, "I'll bet one of the families had a son in Kosovo."

Looters out of Los Angeles had fled to Palmdale in front of the supposed splash and had ended up burning most of Palmdale to the ground. Aaron saw no good to be gained

in sharing the news with the folks at this time. He cautioned everyone to not mention it to those folks.

Bob also gave him a bit of background on the people that Ron had shared with him. It sounded to him like Ron was fishing to make a trade, and they did have 2 chainsaws, maybe they should lend the folks one to cut wood with. They'd have to come up with their own gas, but maybe they could work something out. Right now he had to figure out how to close up the entrance to this cave they had just moved into.

The three old geezers were the ones who broke the ice. They hauled the remaining bags of sackrete, trowels and 4 cans of gas over to the 'Colorado Cave'. The folks from Englewood were taken aback, but it only took them a minute to recover. Aaron presented Ron with the spare chainsaw. The girls were already talking about those boys from California and their mothers were already starting to worry. Aaron saw all kinds of long-term potential in their new neighbors. Besides, they had already wintered here one year and if those old geezers could do it, so could they.

The Rock – Chapter 3 – Trying to Survive

With the chainsaw came opportunity. The three men moved all three trailers up where they had parked the one the previous winter and started to rig a permanent roof of sorts over the doors. Aaron saw what they were doing and came over to ask about it.

“What are you fellas doing?” Aaron asked.

“Last winter we moved our firewood into the cave,” Gary explained. “We parked a trailer right here and used it for a freezer. Ran a canopy down to the trailer to get access to the meat that we stored in the trailer.”

“It would go a lot better if you men had some real lumber to build that cover with,” Aaron suggested. “If you’d let us use your trailers, we could go after some lumber. We spotted some on the way here.”

“Well sure, if you want to,” Ron quickly answered. “You need someone to come along to help?”

“How about your two boys, Ron? Gary, could you get your son-in-law and his boys to help too?” Aaron asked.

The guys from Denver had customized pickups of a sort. Their pickups had extra fuel tanks, winches, long beds and 6-passenger cabs. The three geezers stopped what they were doing and got the younger men to go along. Aaron, Bob and Jacob took time to explain the use of the firearms they supplied to the people they armed. Eventually they were hooked up and ready and they took off. They returned several hours later with the trailers and trucks full of lumber, plywood, nails and a few squares of shingles.

“Did you have any trouble?” Clarence asked.

Aaron, said, “It was awful, I tell you. The guy wouldn’t take my American Express. He said they only took VISA.”

When his attempt at humor fell flat, he recounted the trip. They received only token attention, he said, probably because of the firearms. The lumberyard had been picked over a little, but they had 2”x4”s, some plywood, lots of nails, and shingles. Although the men from Denver were not carpenters, you never would have known it. The next day all of the men in both groups pitched in and erected permanent canopies from both caves to parking areas for the trailers. Since the trailers the people from Denver had were shorter, they swapped one trailer with the Californians.

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Then the men all set about gathering firewood and filling two of each groups’ trailers. The extra lumber was stored off the ground and covered with tarps. Man, those chain-

saws made fast work of cutting the firewood. When it came time to split the wood, Ron explained that they split very little kindling, opting for larger pieces that burnt longer and tried to never let the fire go out. It made to wood last longer, he said.

Jacob had an idea and they used the last of the sackrete and loose stones and built fireboxes after a fashion in both caves to use as stoves. Gary produced some metal grates that he had scrounged on one of their trips. They were rusty, but they worked as tops for the fireboxes. This pleased the wives who had been cooking over what amounted to a campfire for over a year.

They worked steadily, taking advantage of the dwindling daylight. The last of the garden was harvested and the food canned or preserved. They could have used more canning jars, but you made do with what you had. They had busted their behinds getting ready for their second winter. The arrival of the newcomers was most fortuitous. The adults were in their forties and not afraid of hard work. By the time the snows came in mid-September, they were ready for the winter.

The people from Denver had those inflatable mattresses, the big ones you used to see advertised on TV, back when there was still TV, and they also found rooms for each family. The caves were extensive and they had all sorts of space. They began to explore the cave complex in earnest and came upon an underground water supply. That meant that they wouldn't have to melt snow for drinking water. It was quite a find.

They had slaughtered the two steers that David had found and shared the meat with the group from Colorado. Their generosity had been reciprocated in kind with the meat from mule deer; the men from Colorado had taken three in a late season hunt. The better the two groups got to know each other, the more they began to pool their resources. The teenagers had paired off quickly, with Bobby continuing to 'date' one of Aaron's girls and David's four sons 'dating' the other girls. Some dates! They amounted to little more than scouting trips to explore the caves and find some place to neck.

There was a new attitude among this group of people, almost primitive in some regards. The girls' mothers worried, as mothers do, but Clarence produced the drugs he had gathered from the drug store and the Colorado mothers freely helped themselves to one particular kind of pill. Clarence hadn't seen any use to the birth control pills, but he didn't bother to separate out the drugs, he had just taken everything. The mothers understood their daughter's sense of urgency to grow up; it was a different world now. And David admonished his sons not to start anything that they would all have to finish.

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The variety that the meat and garden added to their diet was most welcome. Cut off from the outside world, the worst ailment they seemed to get was the common cold, a downside, it seemed to living in caves. Ruth was a RN so they had better medical care, if they needed it. The tunnel connecting the two caves became a regular thoroughfare, as the men and the women gathered in groups to discuss topics of common interest.

Life had gone full circle with early man living in caves to survive a hostile nature and modern man having had to resort to the same caves to survive a hostile universe.

Early civilization had occurred when groups of people had come together in groups to hunt and gather and later to grow crops. Modern civilization found itself in exactly the same position as their ancestors. They had once again become hunters and gatherers and grew their own crops. But, it wasn't the same as before, they had modern medicines and seeds in packets and far better weapons and tools. In a way they were starting over, but in another way they had several thousand years of advances to draw upon. The common danger that faced early civilization and modern civilization was still the same, though; their fellow mankind.

About one third of the world's population of nearly six billion hadn't survived the strike and its immediate aftermath. A lot of the Far East had lost its populations. The Rock could have struck anywhere, South America, Europe, anywhere. With the planet being tilted on its axis by some 23°, one could draw an imaginary line around the globe and plot the possible points of impact. If they were interested, that is. But, no one was interested. They were too busy trying to survive. All at once the sudden demise of the dinosaurs 65.5 million years earlier went from a history lesson/supposition to a fact of life.

A second third of the world's population died in winter that followed the strike. Much of the population on the planet lived in the northern hemisphere and only the hearty survived. Countries like Switzerland, with its advanced civil defense preparations did better than most, while countries like France with its more casual approach to life lost large segments of its population.

Africa became a frequent destination for aircraft when they still flew and millions moved to the continent to try and eke out a life. South America was popular among Americans, as was Mexico and Central America. But, the infrastructures in those places were ill prepared for the onslaught of people and massive fighting broke out as far too many people tried to share insufficient resources.

Massive migrations occurred as the world tried to redistribute its population. Not everyone made it and some who did died in the fighting that followed. Of those who didn't make it, there were those who were prepared and hadn't tried and those who were left behind. Most of those left behind perished in that first winter. A few of the prepared died too when they found that their preparations were insufficient.

In the US alone, the population had dwindled from 280 million in 2004 to merely 30 million in the beginning of the summer of 2005. What use were all the modern conveniences when the electricity stopped and the natural gas ceased to flow? Water systems froze and the pipes broke and water no longer came from a pipe in the ground. And, without water, most toilets couldn't function.

Those who God had favored and those that were prepared migrated south to the southern US and to Mexico after that first winter. This accounted for the massive upswing in

population that our survivors had noticed. But, there were too few resources for the 30 million and fighting over what remained claimed another 10 million lives. Our friends had been wise to limit their travels and the trip to the lumberyard had come just at the moment when many in the area were off somewhere fighting over the scarce resources. Talk about luck. It took more than preparedness to survive; there was always that element of luck.

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Luck came in many forms. Like when they'd heard voices deep within the earth and had gone to investigate only to be fired upon. They'd closed off that tunnel, but how many more tunnels were there connecting them to others who had taken to the caves to survive? Forewarned by the incident, the Coloradoans and the Californians posted guards at the choke point where their caves joined into the massive underground labyrinth. Firing firearms underground was a dangerous endeavor; what with bullets ricocheting off of the rock surfaces and they armed the guards with shotguns to reduce the danger.

Thanksgiving was a joint affair for the two groups and they had a lot to be thankful for. The people from Colorado were thankful to be out of Colorado and safely housed in a new home. They were thankful too that they had come across this particular group of people from California who was willing to share what they had and what they had learned.

Clarence and Ron and Gary were thankful that the people from Colorado had come. These seemed to be God fearing Christians who were well prepared and not afraid of work. They had equipment and skills that the men lacked. And, as luck would have it, the two groups of people had just the right mix of males and females of the same ages, especially the younger people.

Ron had dug deeply into their supplies and had come up with a couple of bottles of wine. While the three old geezers didn't drink, he passed out the wine to those that did and proposed a toast.

"To our new found friends and a successful summer," Ron said, raising a glass of iced tea.

"Hear, hear," were the responses. (The full expression is: Hear Him, Hear Him.)

"This is quite a cave complex," Aaron opined, "You'd never know it to look at it from the outside."

"I don't know if that's good or bad," Clarence responded, "I don't like the idea of having to post guards with shotguns."

"Well hell Clarence," Ron said, "We're out of the cold and we have enough food, and a water supply, so I guess we'll just have to take the bad with the good."

"I miss the internet," Gary said out of the blue.

"I'm sure that we all miss a lot of things," one of the wives said, "But it doesn't do any good to think about what could have been. I agree with Ron, we have food and water and shelter. We have tools and weapons and seed to grow food. What more could you ask for?"

"The History Channel," Gary quipped. "And the Sci-Fi Channel. I miss all of those 100' foot pythons trying to kill people and all of the aliens who look just like us. And Ron, I never did get to Roswell to see the flying saucer."

They ate a magnificent feast of beef and venison and vegetables from the garden. There wasn't any turkey and dressing, but that had only become a tradition as a result of some Madison-Avenue types anyway. John was doing well in the group. He was very quiet and just blended in and was pulling his weight.

Kevin, on the other hand, was continuing to be a real pain in the rear. He and Ron had squared off against one another more than once. Ron was all in favor of banishing Kevin from the group and Linda and he had argued about it more than once. The thing about banishing Kevin was that it was so permanent. Even armed and with a backpack full of food, he probably wouldn't last more than a few weeks away from the group. And they certainly couldn't boot him out near the end of November.

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The snow didn't seem to be as deep this year when they peeked out to check and the sky seemed to be marginally brighter. That was good; maybe the snowfall was slowly cleaning the atmosphere. But, someone remembered, the explosion of the Krakatau Volcano in Indonesia back in 1883 and suggested that they would probably have to contend with dirt in the atmosphere for several years.

Other eruptions must have been as big or bigger than that, but no one lived nearby to be threatened (for example the Valley of 10,000 Smokes eruption in Alaska in 1912). The Mt. St. Helens eruption in 1980 in Washington State was a far less dangerous eruption than these, only 61 humans died, although thousands of deer and other animals perished.

The ancient eruption at Santorini Island in the Mediterranean Sea in about 1650 BC certainly killed thousands of people (and was the source of the Atlantis legend), but there are no real estimates of the number of deaths.

Before the spectacular August 27 1883 eruption, which destroyed two thirds of the volcano above sea level, Krakatau measured 9 by 5 kilometers. The last huge eruption, one of the biggest explosions on earth in recorded time, killed over 35,000 people living on the Java and Sumatra shores of the Sunda Strait. Blocks of coral weighting as much

as 600 tons were hurled ashore and the tsunami of 40 meters high still measured 2 meters when it reached Indonesia's capital Jakarta.

About 20 cubic km of material was expelled with ash falling in Singapore, 840 km to the northwest, and on ships over 6000 km away. Fine ash in higher latitudes caused unusually red sunsets for three years and acted as a solar filter, resulting in a 5-year global temperature drop of 1.2° Celsius.

No one knew how the scale of the impact compared to the explosion of Krakatau; certainly it was far more significant considering the temperature drops. And, no one was trying to figure it out either. There would be lots of time in the future for the next generations of geologists and anthropologists and all manner of scientists to figure that out. All the people of this generation were interested in was when the sky would clear and when the winters would warm up and the summers cool off.

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The men spent the time between Thanksgiving and the end of the year exploring the cavern. They realized that their humble caves were part of a far larger cavern complex, probably tied into the main Carlsbad Cavern. They explored and located tunnels with footprints and blocked them off. Anyone who wanted to talk to them could come via the front door, not some tunnel. The folks from Colorado had started at the main cavern and had been driven off with gunfire too. Not everyone making their homes in these caves/caverns was hospitable if their two experiences were any measure.

After Christmas, which was basically devoid of gifts, the men and women set about planning what they would do during the coming summer. They decided to use some seeds with slightly longer growing seasons; hopefully the clearing sky was an indication of a longer summer. They also decided that they should irrigate a portion of the land around the spring to give them more ground to plant. The men from Colorado had snares and they decided to try and snare rabbits. Might work, might not, but if it did, it would expand their meat supply.

Then there was the matter of preserving meat taken during the summer. They didn't have freezers so they decided to try and jerk the meat. One of the men, Jacob perhaps, suggested that they build some frames and fill them with water just before the next winter came on. They could form huge blocks of ice and use one of the cavern rooms as an icehouse. Lord knows they had plenty of sawdust from the chainsaws. They could fashion some sort of door out of 2x4's and plywood to seal off the icehouse. That should solve their meat storage problem.

They thought that Jacob had a good idea, but why wait until next year? They cleared a path to the stacked lumber and built boxes and lined them with plastic bags. They filled the boxes with water taken from deep within the cavern and in a few days had blocks of ice. The expansion of the ice had bulged the boxes so they dismantled them and took the ice to the cavern. The blocks were large and heavy and they had a terrible time, but

they got it done. This became a routine of sorts and although the sawdust wasn't enough to insulate all the blocks of ice, they filled first one and then another chamber with ice. Not bad, they decided and moved the meat in from the trailers that served as freezers. Next year, they could fill them with wood, too.

The plywood was taking a terrible beating from being expanded so many times and they made a note to consider risking a trip back to the lumberyard the following summer. They also decided that with the icehouse, they could kill the animals' right on the spot and butcher them and store the meat. There would be no more herding of animals and having to feed them until the butchering time just before winter.

And, maybe they could build a smoke house and smoke some meat using the mesquite or some other suitable wood. It was a strictly play it by ear thing for most of them. The women said if they were going to risk leaving the area of the caves that they should look for more canning jars and lids and pressure cookers. And, they wanted salt to use as a preservative in addition to its being a 'spice'.

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They muddled through the winter of 2005-2006 and spring came earlier than the year before. The women set about planting the garden and the teenage girls acted as their guards. The men took two pickups and two trailers and the moment they could move over the roads set out to scavenge. They tried to avoid people as much as humanly possible, but they had their close calls and a firefight or two. A couple of them had minor wounds, but Ruth tended to them and fed them antibiotics.

They got the plywood, why someone hadn't taken it they had no idea, and found a large quantity of sidewalk salt. They hoped that they could get by with it for a preservative. It probably wasn't the most pure salt, but they could dissolve it in water and decant it and try to use it. The label on the bags said 'pure sodium chloride', so they decided to risk it.

Just when much of the population was coming out of their lairs or whatever one would call them, our people were done traveling. The canning jars and lids? Found a whole pile of them overlooked in the storeroom of a grocery store. A second and third pressure cooker came from abandoned homes along with additional jars and lids. Whoever had lived in those out-of-the-way homes had stocked up a little too and they came away with a trailer load of staples to add to their dwindling supplies. They had to admit that luck was playing a big part in their survival.

They had come out around the middle of May and had planted around the first of June. Their crops this year included dry beans and some wheat. They were speculating that their growing season would be similar to that of North Dakota before The Rock. They figured that their potatoes would be substantially larger in size, too. Using the plant seed packages as their guide, they planted all manner of vegetables, including ½ of their heirloom seeds.

Noticeably absent from their diet was poultry and seafood/fish. That also meant that they had no eggs and the supply of dried eggs the Colorado people had was being used up. Maybe they could risk one more outing, just after the snows began to fall. Poultry was high on their list. They had some of the ¼" screen left and in the evenings used some lumber and the mesh to build some chicken cages, just in case.

They were doing a lot of the just in case things, these survivalists. God favored the prepared, or so they told themselves. (The actual expression comes from Louis Pasteur, 'Chance favors the prepared mind.' Travis Dane borrowed it for *Under Siege-Dark Territory*.)

Well think about it. If you had chicken cages and no chickens, you weren't out much. On the other hand if you found some chickens, and had no cages, it might be pretty troublesome to get those chickens back to the cave alive.

And, if they got lucky and found some chickens, they had to get chicken feed. You sure couldn't expect chickens to live off the table scraps like the pets were managing to do. Speaking of which, they'd better look for some pet food. It wasn't likely that people had resorted to eating pet food yet. Or, was it? One thing was certain, they all agreed, they'd have to wait until after the snows to risk another outing. There were no ifs ands or buts about that.

"I wonder how Derek and Mary are making out." Gary thought aloud.

"Hell's bells Gar-Bear," Ron replied, "If I'm any judge of character and you have given me the straight scoop on Derek, they're probably making out like bandits."

"What is Derek like, Gary," Clarence asked.

"What do I say?" Gary answered. "In many ways he's more of a survivalist than I ever thought of being. Plus he has the advantage of all that Army training. If they're ok, wherever they are, he's doing about what we're doing. Except I wouldn't want to be anyone who threatened that family of his; he take them out before they even knew what hit them. Otherwise, he'd be lying low, just like we are."

"How do you suppose Kevin is doing Ron?" Clarence asked. "I never expected him to take off just like that."

"I don't know Clarence and I'm tired of worrying about him," Ron replied. "At least he had the good sense to take his insulin with him, but how far can you get on a knapsack of MRE's? That .22 rifle he took isn't much firepower either. Probably took it because the ammo is so light."

"So, when are we going out scavenging again?" Gary asked.

“Aaron says we’ll go after the snow starts to fall,” Ron reported. “He figures a lot of the people will be holed up by then.”

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In the Colorado cave, at the same time...

“What did you expect Mary?” Aaron asked. “The twins are 18 and I figured it was just a matter of time.”

“I figured that you would be pretty upset and angry,” Mary replied. “It’s almost like ‘mon-key see-monkey do’ with those two.”

“I am a little angry, but that doesn’t really change the fact that they’re both pregnant, does it?” Aaron shrugged. “I’ll talk to Bob and David and we’ll figure out something about making the relationships more permanent. We don’t have a preacher or a judge, so I guess we’ll have to just make them promise to love and honor each other and let it go at that.”

Both girls were very pregnant, almost 5 months along. They had made a sort of a sisterly pact and challenged each other about who could get pregnant first, of all things. Bobby and Jesse were most obliging, thinking the girls were on birth control. The girls had already told the boys and that had probably explained why the boys seemed to look away whenever Aaron had come in contact with them.

There wouldn’t be any shotgun wedding; just a word to the father of the boys should suffice. At least he was spared the expense of a big wedding. It was a good thing too because Aaron had spent all of the money Mary and he had set aside for the weddings on survival supplies back in 2004.

Bob wasn’t the least bit surprised. Bobby and Rhonda had been an item for quite a while and he too figured it was just a matter of time. Aaron explained that the girls had tricked the boys but Bob said it didn’t make any difference to him what the circumstances were; Bobby was going to do the right thing. Besides, Bobby was so in love with Rhonda that the only thing he was concerned about was complications with the pregnancy.

Aaron didn’t really know David all that well, but when he presented the same information to David about Rita and Jesse, David immediately called Jesse to task. Jesse was going to be a father, David announced, and just what did Jesse intend to do about it? David, of all people, was sort of eyeing his shotgun.

Jesse didn’t have any reservations at all. He had been raised to be responsible for his actions and he really liked Rita. He didn’t know if that qualified as love or not, he’d never

been in love before, but he REALLY like Rita. Aaron added two double beds and two cribs to their shopping list.

Mary talked to Ruth and Ruth switched the girls to pre-natal vitamins. She could deliver the babies if they didn't both come at the same time, she said. Other than that, they were just going to have to trust to luck. She had no idea where there was a doctor and did they really want to risk going looking for one? Ruth examined the girls the best that she could and the babies seemed to have strong healthy heartbeats. More than that, she couldn't say.

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They looked around the caves and found chambers for the new couples to use as their family rooms/away space. They held a double wedding of sorts before the first snow. It was a pretty simple affair with the kids promising to honor and cherish each other and that was that. Well, they did have a big party afterward and Ron managed to come up with two more bottles of wine to toast the new couples. They moved the twin beds to the new chambers and left the couples alone. Two more items went on the shopping lists, rings and baby formula.

Neither was an absolutely must have item, but you never knew. You could always come up with a formula with a little karo syrup and instant milk, but it was better to be prepared. (The complex formulas recommended that parents mix cow's milk, water, cream, and sugar or honey in specific ratios to achieve the nutritional balance believed to approximate human milk reformulated in such a way as to accommodate the believed digestive capability of the infant.)

They had a pretty good snowfall a few days after the wedding and the men set out to shop. Their suspicions that most people would hole up proved to be correct and they didn't run into many people. The rings came from a souvenir shop and while they weren't wedding bands, they'd have to do. The beds and cribs proved harder to find, but they went to those two out-of-the-way homes and found what they needed. Where one finds cribs, someone sometimes finds formula and they did. There wasn't much of it, but they took what they could find. The chickens proved to be easier. Well, sort of.

They found a hen house and a bunch of chickens, but it took them quite a while to corral the chickens that had gone a little wild. They brought the hens and roosters and the nests of eggs. Maybe those eggs were fertile so they might have made out pretty good, only time would tell.

They also found chicken feed and pet food at a feed and grain. And, glory be, a bull and two cows. Well, they guessed they could give the bull and two cows the run of the great room, as they called it, this year and see about a barn the following summer. In the meantime, that meant real milk for a change and a chance of building a herd of cattle. That bull was a mean SOB, or were all bulls that way?

They'd have to come up with some kind of a corral for him and feed for the cattle. That meant a second trip out into the accumulating snow, but they took the trailers and looked for hay or cattle feed. They took what feed there was from the feed and grain on their second trip, they'd found the cattle after they'd stopped there, and located a bunch of hay. They'd piled their straw from the wheat crop in the cavern so they had some bedding for the cattle. All in all it had been a very good year. The boys from Denver had one of those hand cranked grain mills so they have a way to convert the wheat into flour.

There are several types of wheat, but they all fall into two main categories. These two categories are spring wheat and winter wheat. Wheat is grouped by its growing season. There are about thirty species of wheat, but only three are common in the United States. These three are:

Durum Wheat - Durum wheat, the hardest wheat, is used in many pasta products because the wheat holds together when made into a paste. It is a spring wheat and grows in Minnesota, North and South Dakota, and southern Canada.

Common Wheat - This is also called "bread wheat" and is the most widely grown type of wheat. It can be either red or white and a spring or winter wheat. In the United States, it is grown on the prairies.

Club Wheat - It can be either a spring or winter wheat and it is closely related to the common wheat. In the United States, it is grown in the Pacific Northwest.

They had planted spring wheat, durum and common, during their spring and had harvested it the old fashioned way, by hand. It was probably sheer dumb luck that they had only spring wheat to plant. Anyway, their climate seemed to mirror North Dakota and they had a fine crop of wheat. They really wouldn't have known the difference had not Gary gathered a bunch of agricultural handouts from various extensions services on the internet way back when, just in case. Regular enriched flour like Gold Metal is a blend of soft (pastry) wheat and hard (bread) wheat.

The Rock – Chapter 4 – Better Weather

Here they were all safely tucked away for another winter. There was snow on the ground but it didn't amount to a lot if compared to their first winter. How much snow there was didn't mean much this early in the season. The men all got together and decided to explore their cavern even further. They had been charging the NiCad batteries all summer long and had hundreds of hours of charge built up. They had penned that mean old bull and found a larger area to corral the two cows, so they were free to roam without dodging livestock. They had a 100' foot tape measure and compass so they decided to try and map the cavern.

The process of mapping a cave involves running a straight line and getting a compass bearing on the line. Then at intervals, perhaps 10' you measured perpendicular to the line from the line to the wall of the cave. The closer the interval the more accurate the map. It wasn't exact because it was so difficult to see the exact compass bearing, but it was close enough for their purposes. Gary explained it as well as he could remember from his high school days.

They mapped each of the family caves first and then the connecting tunnel. From there, they spread out, mapping as much as they could each day. The best they could do with the overhead was guess, but the map didn't show the overhead except as a notation anyway.

Maybe making the map wasn't so important, but it gave them something to do and they began to learn how extensive their underground home was. They marked the blocked off tunnels where they had found footprints on the map and drew a skull and cross bones by the locations. It was melodramatic, but a pattern began to develop. Obviously there was another large cavern to the north of them and it could contain the people that shot at them before. It was good to know, come spring, they would have to look to the north to see if they could find the entrance.

The girls were due in February, they weren't exactly sure of the dates, but that was close enough. Bobby and Jesse had acted very responsibly and hadn't needed any coaching to 'do the right thing'. Bob and David were reasonably proud of their boys, given the circumstances.

When the three Californians got to talking about returning to Palmdale, Aaron broke down and told them that there might not be any Palmdale to return to, explaining about the looters and the fire. What the hell the three men said, there were probably plenty of empty houses sitting around for the taking. They said they probably would never find an insurance agent to file a claim with anyway, if the insurance company was still in business, which they doubted.

This new process of making ice was working so well that they didn't have to harvest the ice nearly as often. The boxes had been changed to a sloped design wider at the top. The natural coolness of the cave slowed the rate at which the ice melted anyway. They

had gathered up the sawdust and insulated the ice anyway, further slowing the rate at which it melted. That had been a back breaker, moving all of the ice, but it was a pleasant task that they had accomplished during the very hot summer. Let's face it; it got them out of the heat for a while.

Some had suggested they get books to read but their primary source of light in the caves was the oil lamps and the flash lights and the oil lamps didn't really give off enough light and, well, did you ever try to read a book by flashlight?

The books were a good idea, however and they made a note to check out any libraries they could find for books on primitive living. They mapped until the babies came and then lost interest. It was amazing how big this cavern complex was. They talked it over and decided to stay where they were and just use the larger area for things like the live-stock and such.

Of course that got them to discussing how much longer they were going to have to live in the caves because they would much prefer to live on the surface and just use the caves as a fall back. They could build homes from rock and mortar or try to find wood to build homes. The rock and mortar seemed like the more practical idea, so from February to late April when spring came, everyone did their best to design a home to their liking.

Rhonda and Robert (He wasn't Bobby any more) had a baby boy with the right number of fingers and toes and no apparent problems. Rita and Jesse had a girl about 10 days later. The new baby boy, Bobby of course, was born on Valentine's Day so that made it very easy for everyone to remember the birthdays. There hadn't been any difficulties with the deliveries and Ruth found the chemical she needed to treat the babies' eyes and such among the medical supplies.

None of them talked much about their relatives and the children, like Damon and Brenda and Jennifer and Scott and Ron's brother Robert or Linda's sister. The whole thing was depressing and painful enough without dragging up painful memories. Their loved ones had either made it or not and there wasn't much they could do about it.

Aside from his boys, now absent, Gary had his whole family with him. Sharon had a sister and brother in law in California City and another sister in Des Moines. Her younger brother was somewhere in Colorado and she'd heard from him exactly one time in the 10 years leading up to the strike. Clarence had a sister in Palmdale who had taken off for Alabama before the strike. The folks from Colorado had never mentioned their relatives. Amy was pretty certain Udell was ok, wherever he was; he was one tough cookie and a survivor.

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A lot of things would change the next summer when they got their hands on a Ham radio and a huge supply of diesel fuel for their generator, but that's getting a little ahead of

the story. Back to the subject of homes; everyone had an idea what they wanted for a home. Gary had a design for home construction that permitted you to have any floor plan you wanted. He was more interested in the structure of the home than the actual floor plan.

He called it the Farnsworth system and said he'd gotten the idea from how they had constructed the home in Mesa, Arizona where his father and stepmother had lived before they had died in 2001. The basic idea was to construct a rock shell of some sort and build a frame home inside of it. You could pitch the roof to whatever pitch was appropriate for the snowfall. The steeper the pitch, the more storage space there would be in the attic.

Basically, he said, you poured a foundation and slab, laid up a stone shell and then built the frame house inside of the shell. Farnsworth shot in an inch of foam insulation and then put R-11 fiberglass in between the studs. Gary suggested that if they could get enough 2"x6" lumber, they should make the frames thicker and use R-19 insulation. And, if they could find equipment to shoot in the foam it would be even better. Sharon and he liked the floor plan that Aaron had come up with so he only concentrated on the construction details.

Anyway, they were getting quite a list, libraries for books, building materials, maybe a few hogs, to vary their diet even more. And they needed baby clothes and diapers and maybe some composting toilets. Maybe one of those books would tell them how to turn their growing pile of manure into methane; there were dozens of ideas and hundreds of possibilities. Someone suggested that they would do well to look for the Foxfire series of books at the library. The books came out during the 1970's, she thought, and they covered a lot of aspects of rural living. If she remembered right, one of the books even told how to butcher a hog.

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To a person, they all considered the caves to be a temporary home. They had never made many improvements beyond putting in the doors, building the makeshift fireboxes and penning off some chambers. Most of them were anxious to move out of the caves as soon as they could manage. They still had some lumber, but not enough to build 8 homes. They had used up the last of the sackrete on the Colorado cave and fireboxes. Their clothes were showing wear from so many hand washings, too. Their list of needs grew as they approached spring.

They folks were out of the caves in late April and on the road looking for literally dozens of items. The first thing that they noticed was that the people didn't seem to be as hostile as previous years. Many had waved to them as they passed and one fella flagged them down. They took a chance and stopped to visit with the man. He told quite the tale of what it had been like living above ground since the strike. The first winter had been the hardest and a lot of people had frozen or starved to death.

In fact, though he had no figures, he was guessing that almost 90% of the US population had died off, he wasn't sure. And, the man glossed over a lot of details about how he and his family had managed to make it through that first winter. The first summer after the strike had been short, he said, but filled with fighting over supplies and places to live. He expected that everyone who had survived the first winter had headed south.

Anyway, during the first summer maybe as many as one third of those who had managed to make it through the first winter had perished. The man sort of rambled as he told his tale. The second winter had been a little shorter, he said and the second summer a little longer, but hotter than blue blazes. This past winter had been even shorter and would you look at the sky; you could even see an occasional patch of blue.

Aaron and Ron asked the man about scavenging for supplies and he told them if it wasn't nailed down, someone had put it to good use. So much for that, they thought. Then he mentioned a survival community that had started up in Albuquerque. The community had failed, killed off by infighting and marauders, or so he'd heard.

Hmm. They hadn't planned to travel as far as Albuquerque, but if that was what it was going to take, it was worth a shot. Was the man sure that there were no people living in Albuquerque? He was pretty certain, but not positive, he said. They turned around and headed back to the caves without having gathered a single thing except information.

"So, what do you want to do?" Ron asked.

"It's a long way to Albuquerque," Clarence suggested.

"That's right Clarence," Bob offered, "But if there was a survival community there for a while, maybe they consolidated the supplies. I say it's worth a shot."

"We are running out of staples," Aaron said. "I don't know that any canned goods would still be safe to eat anymore, but if we could get staples, lumber, books, and building materials, we'd be a lot better off."

"We only have about 3 quarts of lamp oil left, too," Gary pointed out.

"I guess we're going to Albuquerque," Ron concluded. "Do we have enough diesel in the pickups?"

"We can get there, anyway," someone said.

They decided to leave the womenfolk there to get in the gardens; the girls could provide their security. The thirteen of them would take three pickups and the three large trailers and see what they could find in Albuquerque. The wives were fearful that they wouldn't ever see their husbands again, but they had to agree that there wasn't much choice. They really needed a lot of supplies. And, don't forget canning supplies, they said.

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They drove to Roswell; Gary didn't get to see the flying saucer, and picked up US 380 to I-25. Their first big discovery was a double-bottomed fuel transport in a rest area. Ron was against taking the tanker, assuming they could get it started; the fuel was obviously old and degraded.

Aaron told Ron that a product called PRI-D could restore even old diesel fuel if it was properly blended and that it could keep the fuel for several years with additions of the additive. He had a bottle of the stuff in his glove box.

They worked on the tractor most of the day, getting it to run. Its saddle tanks were full, or nearly so, and there wasn't much condensation. With the PRI-D in the saddle tanks and a jump from one of the pickups, they finally got the tractor started. John and Bobby were assigned the task of getting the 16,000-gallons of diesel fuel back to the cave.

The find of the double-bottom rig was most fortuitous and the men took it as a good sign. They made their way to Albuquerque and spent the night in an abandoned motel. The next morning, they ate their MRE's and set out to see what they could see. Albuquerque was like a ghost town. It gave them an eerie feeling.

And, they were like kids in a candy store. It was going to take them all summer just to haul the booty back to the caves. They found the survivalist group's encampment. It was just as they thought; the group had been busy scrounging the area and the men began to load their trailers. A lot of the things that they had on their list were found all in that one spot. But, that gave them a big problem. How were they going to get all of this loot back to Carlsbad? It would take them a year or two to haul it all in the trailers.

Necessity is the mother of invention, or so it is said. For one thing, there was more than they could use in a lifetime here in Albuquerque for the taking. For another, they had seen the advantage of sharing. So, they made the assumption that this would be their only trip to Albuquerque and prioritized their take. They located all of the PRI-D they could find to convert the fuel on its way back to the cave. They went to a Kenworth dealer and found several new tractors. A couple of days work gave them a dozen or more new tractors that they got to run.

There were lots of trailers, some empty, some full. They took the empty trailers and filled them with staples and diapers and drugs of all kinds. A library provided the Foxfire books and hundreds of books on primitive living, construction and the like. They took their first load and headed back to the caves.

When they were loading the trailers, they distributed the various goods equally among the trailers in case they had to abandon one along the way home (block combat loading). They dropped off a trailer of goods to the folks in Roswell, a second for the folks in Artesia and a third for the folks in Whites City. It was sort of a 'good neighbor' plan that

they hoped would reap rewards. Besides, if they didn't share, someone might just decide to take the treasures from them.

They spent several days unloading the trailers and then set off once again to bring more goods from Albuquerque. On the return trip, there was no shortage of volunteers to help them on their quest. The men and all of the volunteers spent a four-month long summer stripping as much as they could from Albuquerque.

Ron suggested that they give up unloading the trailers because they made perfectly good storage. There seemed to be no particular shortage of trailers in the northern city anyway. They ended up towing doublewide mobile homes back to Rattlesnake Springs and solving their housing problem. Discussions of building their own homes were forgotten. Everyone pitched in as summer waned and helped them set up the homes. The 'good neighbor' policy was reaping them huge rewards, indeed. For the first time in a long time, they had real homes to live in. Maybe they wouldn't need all of those books on primitive living after all!

They put up a pole barn, with a lot of help, and got the livestock out of the cave. The gardens had produced an abundance of food this year and they had lots of canning supplies. Among their treasures was a large diesel fueled generator and tanks of propane for their stoves and water heaters.

They hauled in a water tank and assembled it and used an electric pump to fill the tank. During this third summer, our survivalists had gone from cave dwellers to living once again in real homes with electricity and running hot and cold water and all of the modern conveniences. They had communications with the outside world in the form of a Ham radio. And they could take a real bath or shower! It was a miracle.

All in all, the people had about half stripped Albuquerque of easy to find goods. Another, longer summer should see them through stripping the remainder of the city of more of the same. Of course, along with the good came the bad. They were the inseparable twins. The snakes had been really bad this summer and more than once someone had come close to being bitten.

The wives complained bitterly that the men would have to take time out next year and fence in the garden to keep out the rattlesnakes. In most ways, however, life was beginning to return to normal. There weren't any grocery stores or drug stores or any other kind of stores, but people had gathered together in farmers' markets to sell their excess food production.

And like the snakes that had slithered out of their dens, the lowest parts of humanity also slithered out of their dens. The people from southern New Mexico weren't the only people to discover the treasures that Albuquerque held. After a summer filled with pilaging, a group of men and women, numbering in the hundreds, had moved into Albuquerque. So much for the treasure trove. But, the people of southern New Mexico

wouldn't learn of this turn of events until the following spring when they returned to finish cleaning out Albuquerque.

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"Man, it feels good to be clean," Ron said. The three men from Palmdale were seated at Ron and Linda's kitchen table drinking coffee for the first time in a long time.

"I took three showers yesterday," Gary said, "It still feels like I'm grimy to the core."

"I'm shedding skin like a snake," Ron said, "All of that cave living must have had an effect on my skin."

"Speaking of snakes," Clarence injected, "What are we going to do about those rattlesnakes?"

"Fence the garden to keep the rabbits out and then just be careful as hell," Ron responded. "The snakes are after the bunnies. If we can keep them out, it will help, I think."

"This is quite a turn of events," Clarence continued. "Out of the caves and into the light."

"More like out of security and into the breach," Gary suggested.

"What are you getting at Gar-Bear?" Ron asked.

"Aaron killed a mountain lion and Bob killed a bear," Gary reminded them. "It seems to me that all kinds of critters survived the strike and moved south. And there are the snakes, of course."

"I wonder what's going on in the rest of the world." Clarence ventured.

"Well, if I can get a little good weather, I can put up those radio antennas and use my shortwave to find out," Gary replied. "We just plain ran out of time and I didn't get them up."

"What kind of radios did you pick up?" Ron asked.

"A little of everything," Gary replied, "That includes UHF and VHF transceivers, a HF transceiver and a scanning receiver. I have antennas for all of them and all kinds of pre-made coaxial cables, too."

"I'll go talk to Aaron, Bob and Jacob and see if they're willing to brave the cold to put them up for you," Ron offered.

"Good idea Ronald, go for it," Gary grinned.

By evening, according to the clock, the antennas were up and connected. Gary mostly just listened, hoping to get word of Derek. His patience was rewarded in a few days and he eventually heard his call sign, KD6GDQ coming over the air. He tuned his HF transmitter to the frequency and replied.

“This is KD6GDQ replying. KD6GDQ replying,” he said, “Who is looking for me?”

Maybe it wasn't proper radio protocol, but although Gary had had a technician's license since 1992, he'd never been on the air. Besides, he doubted there was any FCC to get on his back about it. FCC hell, there probably wasn't even a government!

“This is KD6GDQ, KD6GDQ,” he repeated, “Come back.”

“KD6GDQ, KD6GDQ,” the voice came, “This is W0UDO, W0UDO. Is that you Gary?”
[Name and call sign used with permission.]

What the hell, W0UDO was his friend Lee who had gotten him started into Ham radio (this time) in the first place.

“Lee, this is Gary, over,” Gary replied.

“I've been trying off and on to get a hold of you ever since the first summer after the impact,” Lee said.

“Are you still in Des Moines?” Gary asked.

“Moved to Arkansas Gary, that's why I've been trying to reach you,” Lee said. “Do you have a son named Derek?”

“That's a big 10-4 Lee,” Gary responded excitedly, “You know anything about him? I haven't heard from him since before the strike.”

“He lives down the road Gary,” Lee said. “He wants to join you. Where are you living?”

“Tell him to come to Whites City, New Mexico,” Gary replied, “And I'll put the word out come spring for people to tell him where we live.”

“How about I have him talk to you himself on this same frequency at 5pm Arkansas time tomorrow night?” Lee suggested.

“Man alive, that would be wonderful,” Gary replied. “How are you? What are you now, 80?”

“I was 80 in 2004, Gary,” Lee said, “You figure it out. Talk to you tomorrow. This is W0UDO clear.”

“KD6GDQ, clear,” Gary said.

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To say that Gary was excited would be to grossly understate the situation. He told Sharon, he told Missy, well, he told everyone. The next day 10 minutes before the agreed time, he was standing by on the radio. The call came in and Derek and he visited for a half hour. Atmospheric conditions weren't the best on that day and they had to cut the call short. Gary gave Derek the names of some friends they'd made in Whites City and told him to contact them when they got there. Lee came on and told Gary that they could talk again every Friday at the same time.

Gary was berating himself for having not had a radio in the beginning. All this time had passed and he had been so worried about his boys. He mentioned that to Ron, which was the wrong thing to do. Ron had been beating himself up over Kevin's departure and his missing kids and family. Gary dropped that like a hot rock, he hadn't realized...

This winter was much different from the winters they spent in the caves. In the first place they actually had a fair amount of daylight compared to what they'd had in the preceding years when they'd looked out. The sky was continuing to get lighter, but the sunsets were more colorful than they'd ever seen in their lives. They began to talk about all the plans they'd had before the strike but soon gave that up because it became so depressing. They switched over to talking about the future and their plans. Thanksgiving came and went. They took extra time to thank God for freeing them from those caves.

Speaking of which, they had stocked the caves very well and if forced to return to the caves could exist inside for a very long time, just in case. On one of the many trips to Albuquerque they had collected a wide assortment of firearms. They now had all kinds of handguns, .357 and .44 Magnum, .45 ACP and .45 Colt. They also had a lot of the AR-15's, several more Garand rifles and a few M1A's.

The survivalists, or whatever they'd been, had a lot of the high capacity magazines and ammo for just about every caliber of firearm one could imagine. They took it all... waste not, want not; they figured they could always use it as trade goods. The married kids had real wedding rings now. This was a good thing because another one of David's boys had announced that he and Judy wanted to get married, and NO, she wasn't pregnant.

Well, why not? They had hauled in 15 doublewides and had erected 10 of them before they ran out of summer. They didn't have any more of a ceremony for this couple than for the other two, just a simple exchange of vows and rings and a huge party afterward. During the party, someone pounded on the front door of the trailer where they were gathered, celebrating. The prodigal son had returned. Kevin stood there disheveled and dirty, but alive. Linda was ecstatic. Ron grumbled something about, "Here we go again," but everyone could see he was pretty happy too. Kevin no longer had the rifle or back-

pack and barely had clothes on his back, but he was there. Ron sent him to the shower immediately and left the door open for a bit, despite the cold.

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Christmas came early this year, or so it seemed. The jury was still out on that one. The folks still used the icehouse in the cave. They hadn't seen the necessity nor had the time to build one outside. They were looking forward to the trip to Albuquerque come spring because they had mostly concentrated on necessities and looked forward to some non-necessities like some impractical clothing and candy and all the things you could get along without but would be nice to have.

Everything they had taken had been very practical like food and work clothes and seeds and generators and all of those necessities. Jacob had brought back a Hoover vacuum cleaner for Ruth but the other men had decided it wasn't a necessity and used the space for other things. Oops. Ruth shared the cleaner, but the men soon realized that what was a non-necessity to them was a necessity to their wives.

Kevin, it seemed, had run out of insulin and had been unable to come up with more. Ron said that if that was his only reason for coming home, he could take some insulin and get out. From the looks of Kevin, he hadn't exactly been eating regularly either, but Ron was adamant. It was the old 'shape-up or ship-out' routine.

Kevin had been slow to come around, but he wasn't exactly stupid. He decided it was time to emulate his brother John. John was quiet and unobtrusive to the point that you barely knew he was around. John was helpful; Kevin just disappeared into the wood-work and only appeared at mealtimes. At least he wasn't picking fights with Ron!

Gary kept up an ongoing dialogue with Derek through Lee. They'd had their share of trouble in northern Arkansas, some with people, but mostly with the weather. They had decided against moving to Louisiana because in Arkansas they knew the enemy they faced and they had plenty of firepower to fight that enemy.

People were crazy, Derek claimed, fighting over scraps of food and pieces of firewood. The lakes had frozen to the bottom and there weren't any fish left in Arkansas, he told his Dad. On the other hand, he was getting pretty partial to squirrel and rabbit when they could get it. Gary told Derek to bring everyone; they had 6 unused homes and a lifetime's worth of food. Gary was exaggerating on the food, but they had a garden and livestock and chickens. They still didn't have a hog, though, he mentioned it to Derek.

Gary also told Derek that he might be in Albuquerque when they arrived, but it was just a supply run, all rather routine. They could take the one house that was set up and when they got back from Albuquerque, they'd set up the other five homes. It was all agreed and they were looking forward to getting together.

Winter passed into spring just like it always did and the men prepared to head to Albuquerque. The runs had become so routine that they weren't expecting any trouble. When the large convoy set out from Roswell they had no idea that they were heading into trouble. Their first clue came when a bullet pierced Aaron's window. The convoy pulled to a near instant stop and they returned fire. It appeared that they were outnumbered and Aaron shouted for everyone to make a U-turn and headed back south. They stopped near Los Chavez and got out to discuss the situation.

The Rock – Chapter 5 – Not for a Vacuum Cleaner

“Hell, fellas,” Aaron cursed most uncharacteristically, “I can’t see getting my butt shot off over a vacuum cleaner. We got all of the drugs and all of the staples. There really isn’t anything we have to have from Albuquerque that’s worth dying over. Why don’t we go on down to Alamogordo and see what we can get there?”

“That’s fine with me,” Ron replied, “Anyone disagree?”

A few did, but they probably just had a sweet tooth. Most of the food they’d left behind was the canned goods anyway. There was a big difference between want and need. Odds favored finding vacuum cleaners in Alamogordo anyway, who’d want a vacuum cleaner? So, they saddled up and headed to Alamogordo.

They didn’t find a soul in the town, which seemed strange until someone mentioned that Holloman AFB and White Sands were just down the road. They filled the semis, making sure to get those vacuum cleaners. They also cleaned out the clothing stores and tried to anticipate anything the wives might think they ‘needed’. Satisfied that they hadn’t overlooked anything in Alamogordo, needed or unneeded, they headed back to Roswell and points south.

They shared what they could with the residents of Roswell, Artesia and Carlsbad. When they got to Whites City and unloaded some more goods, Gary learned that Derek had arrived and had been directed to Rattlesnake Springs. Gary was chomping at the bit, telling the men to hurry up and unload, he wanted to see Derek and Mary and his grandchildren. They finally moved out and arrived at their homes to sounds of gunfire. What the hell?

They were behind the attackers and when the attackers turned to fire on them, they let loose. In the firefight that ensued, two of David’s boys were wounded, but none of their people were killed. One of the attackers had survived, but was more dead than alive. Ron got to question him and he didn’t expect that was any press around to tattle on him to the American public that he’d abused a prisoner. It’s amazing what a boot pressed to a wound can do. It can elicit screams and it can elicit a loose tongue. Ron got plenty of both. The man was a member of a group that had been living in a cavern to the north of theirs.

That explained a lot. These were probably the people that had shot at them and forced them to block off tunnels. When he had the information he wanted, Ron shot the guy before anyone could react. Derek hadn’t been there 5 minutes before they had attacked the women. They were doing a pretty good job of holding them off when the men drove up.

Gary and Derek exchanged a hug and the men all set off to check out the other cavern. No wonder they hadn’t seen it before, the entrance was carefully camouflaged. When they got inside, the place was a hovel. They people must have had a lot of food, they

decided, based on the empty boxes strewn about. They assumed that the people had not come out until they had run out of food. The smell would gag a maggot. They gathered up the guns and ammo, nothing else was worth taking and returned to their homes.

◦

They set about unloading the haul from Alamogordo. For the first time they had cleaned out a National Guard Armory. They hadn't ventured to Holloman; something just told them that it wasn't a good idea. What was left of the government, Bush, and a few others, were holed up there, not at Cheyenne Mountain, and the base was locked down. Anyone who ventured near the base became a long-term guest or died.

Anyway, they got Derek to check out the haul from the Armory. The rest of them looked over the haul from the town. It was apparent that they weren't the first people to scavenge Alamogordo. But whoever had been there before them had only taken a little. Why there was anything left in the town was a bit of a mystery, and they counted their blessings.

The younger people had the task of piling and burning the bodies of those other cave dwellers. That was mean, but someone had to do it. They made sure of the way the wind was blowing before they lit the pyre. Derek inspected and cleaned the M16's and the weapons from the Armory. He passed out 2 rifles per person and they got someone to take the surplus weapons and extra ammo back to Whites City. They now had a front gate guard.

Over the course of the next couple of weeks, townspeople came and helped them assemble the 5 remaining mobile homes. Mary's folks moved into the first that went up. The men put up a mesh fence around the garden to keep out the rabbits and snakes and began to trap the rabbits. Not for food, but to feed their new pets. Someone had the brilliant idea of digging a pit to hold captured snakes and they needed the rabbits, especially the younger ones, to feed the snakes.

It wasn't an original idea about the snakes; the person making the suggestion said he'd read it in a story on Frugal Squirrel's website. The pit was a lot of work, but it stretched for a long ways and became sort of a natural minefield, covered over as it was. Every time they saw a snake, they caught it and added it to the pit. They even took to growing rabbits, just to feed the snakes.

◦

Derek was a welcome addition to the group in more ways than one. First, there was the fact that he was alive and safe and with them. Second was the fact that Mary's Dad had pulled in a trailer with some hogs on board. Third was the fact that Derek had some military expertise and he set about organizing their defenses. He spent long hours putting in fighting positions and training them how to use the M16's properly.

The women were very happy about those vacuum cleaners and the clothes and the fence around the garden. The growing season was marginally longer and they were doing very well in the garden not having to dodge snakes. They still 'beat the bushes', just in case, but the growing population of reptiles in the pit was comforting in more ways than one. Ruth had read one of the books and had figured out which seeds were hybrids and which were heirlooms and they were planning on harvesting fresh seed for the first time this fall.

That group up in Albuquerque had run out of edible food, lots of the cans were bulged, and they decided to head south to see if they could find the bunch who had tried to enter the city a few weeks before. Along the way, they cleaned out the smaller towns and ended up in Alamogordo. Someone had cleaned out that town practically to the walls. They ventured to Holloman and got into a firefight that took half their number before they could retreat. 'Take a note Velda, stay away from Holloman AFB.' Those that survived the encounter decided to head east to Roswell. They were down to about 400 people, but they were the meanest of the bunch.

The community of Roswell, NM had grown considerably. The extra supplies those people down at Whites City had shared with them had been a Godsend. They were more than beholding to those folks, where were they from? Colorado and California? It didn't really matter, the people decided, but they had freely shared the takings from Albuquerque. The people in Roswell had joined in the scavenger hunt and they had been the ones who had cleaned out an Armory in Albuquerque. They had an armed guard posted to the north and to the west of Roswell. They put up a fierce fight when that bunch came in from the west, but maybe $\frac{3}{4}$ of them had bypassed Roswell by retreating and skirting the town, and heading down towards Artesia.

Artesia, NM had also been the recipient of the shared goods and had joined in the trips to Albuquerque. These folks hadn't come away with any weapons, mostly just food. Consequently, they took up positions to guard their city but only from a direct attack on the people themselves. They left a clear corridor for those pillagers and killers to pass their town by. US 285 was on the east side of the community and they concentrated their people to keep the people moving right on past the community. Their strategy worked and they warned Carlsbad by radio that about 300 bad guys were headed their way.

The people of Carlsbad, namesake of the Caverns, put up a fearsome defense. They were well entrenched and were able to kill about half of the marauders. Unfortunately, one of the townspeople was taken prisoner and before she died, she revealed the name Whites City and then 'at the caverns'. The bad guys had started out just shy of a thousand and were now down to between 150 and 200 people. They moved on from Carlsbad toward Whites City on US 62/180. They had paid a terrible price to get where they were and weren't about to give up now. They lost about half of their number when they went through Whites City and the remaining 100 some headed to the Visitors Center at the National Park.

The bad guys figured that wherever the group was in the park it had to be near water. A map of the area revealed a place called Rattlesnake Springs southeast of the park. It was south of Whites City on US 62/180 and on a small road, state route 418. They returned to Whites City, losing another 40 or so people in the process and headed south on US 62/180. When they got to state route 418, they turned to the west into the park.

◦

By the good graces of Gary's friend Lee, Ron had been able to contact some people in Ft. Smith, Arkansas. He was tracking down Jennifer and Brenda and their families. The kids had headed south, and had ended up somewhere in Texas. They spent most of the summer tracking them, via radio and finally came across them in the Lubbock, TX area. Ron told them where they were and told the kids to shake a leg and get to the park. His two daughters, if the truth were known, hadn't needed much of an incentive and they had shown up in mid-August. He never was able to track down Paula or his brother Robert nor Linda's sister.

The kids had taken US 62 out of Lubbock and picked up US 180. They had followed US 62/180 to Carlsbad and on down to Whites City. They had arrived about two weeks before the bad guys. They occupied two of the mobile homes and had barely gotten their feet on the ground when all hell broke loose.

Derek had placed a sentry on state route 418 just after it split off from US 62/180. He reported hearing gunfire in Whites City earlier and the people went on alert. With the second report of gunfire from the Whites City area, they took up their positions to defend their homes. The sentry saw the bad guys moving their way, and beat a hasty retreat. Although outnumbered about 3 to 1, the group of survivors from California and Colorado figured they had the advantage of position and knowledge of the area. Plus, they had their makeshift 'minefield'.

The bad guys from Albuquerque came charging in like they were facing little resistance. When a number of them fell into the 'minefield' and were bitten by the few hundred snakes, they backed off and took a new approach. But they didn't have a lot of cover and over the course of the day the survivors whittled them down until there were none of them left to fight. Some of them were wounded and Ron was put in charge of the interrogation. Ron had such a way of getting information out of people. While Ruth tended to their wounded, luckily none of them had been killed, Ron persuaded the dozen or so living bad guys to reveal everything they knew. I think they called Ron's method of interrogation the 'boot method'.

◦

Ron learned, in bits and pieces, that these were the people from Albuquerque. Although they had started out almost 1,000 strong, their number had been whittled down along

the way to the park. Sharing those goods with the folks in Roswell, Artesia, Carlsbad and Whites City had paid big dividends.

Through his 'gentle' interrogations, Ron was able to piece together the story of the group's travels. They didn't know what was at Holloman, trouble, they said, but the survivors each gave him information they could use. The survivors, by the way, got to experience the minefield first hand. As a matter of fact, they dumped all of the bodies into the minefield and covered it over, the snakes having served their purpose.

The folks there at Rattlesnake Springs campground/housing development got in their semis and picked up people along the way. There were still plenty of goods to gather from Albuquerque. They didn't figure this was the last of the trouble, far from it, but they'd better finish cleaning out Albuquerque before some other gang took over the city. They worked non-stop and by the time the first snowfall came, had most of the goods worth taking moved from Albuquerque to the towns and cities along US 285. They pulled the empty diesel trailers back to Albuquerque to a depot and refilled them. An appropriate application of PRI-D restored the fuel to useable condition.

They scoured Albuquerque with a fine-tooth comb and found more medical supplies in neighborhood pharmacies and additional diesel generators, the big ones. They located more tankers and hauled more of the diesel fuel, sharing it with the other communities. They found a warehouse filled with various products manufactured by the Houston, TX firm Products Research, Inc. that manufactured the PRI product line and hauled every bit of it to Whites City. They were in tall cotton, as the expression goes.

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Reflections

What year was it? They guessed it didn't matter anymore. They reflected on all that had happened since the strike. It had been a series of miracles. They'd found the cave and had survived the first winter. Aaron and the folks from Colorado had moved into an adjoining cave and greatly improved their lot. They had been able to scavenge, scrounge and salvage what they had needed and had gotten by.

Although they had moved out of the caves and had homes and electricity and the like, many of their living conditions were still primitive. They had to grow their own food and hunt their own meat. They didn't have a doctor, only a RN. There was a doctor available, but it meant a long trip to Roswell and he was a general practitioner, not a specialist.

From what they could gather on the Ham radio, the world had lost a lot of its population. There weren't many governments as far as they could tell. Governments, if they existed at all, were more of a local nature. If the US still had a federal government, it must be a secret. In fact, if any of the states had governments that must be a secret, too. To the best of their knowledge, the only governments were the local town councils and they

were as much appointed as elected. There were no doles from the government any more, you made it on your own or died, and it was as simple as that.

The families were all together, mostly at least. It was anyone's guess what had become of Damon and Paula and Robert and Shelia and Sharon's family. But rather than mourn the missing, they gave thanks for those who had survived and had made it to Rattlesnake Springs. This past summer had proved that among the living there were the good, the bad and the ugly, a cliché and a parody on the title of the old spaghetti western. At least there were about 1,000 fewer of the ugly.

They had 20 homes now, including the five more that awaited assembly during the next summer. There was electricity in abundance, courtesy of the additional commercial generators from Albuquerque. There was plenty of fuel in the tankers and in the depot up in Albuquerque and probably more at other depots around the country. If they were to venture forth in the coming summers, it would be to the north rather than to the east and west, they wanted to avoid civilization such as it existed along the southern tier of states. What was the use of fighting over the limited resources when there were so many more to the north?

◦

"We are going to have to be a lot more careful," Aaron suggested. "I think that we brought that bunch from Albuquerque down on ourselves."

"How would you do it different, Aaron?" Ron asked.

"Well, for one thing, we need a fighting force separate from our drivers," Aaron said. "I've been talking to Gary's son Derek and he thinks that we should scout out the cities before we just go driving in like we own the place."

"Where would we get the people for an army?" Clarence complained.

"There are a lot of people in the communities we helped out," Aaron offered. "And weapons are no problem; we have plenty of rifles and ammo."

"I'd prefer something a little heavier than rifles," Ron objected.

"Like what?" Bob asked.

"Oh, some grenade launchers and rockets, you know the usual military hardware," Ron responded.

"No one came up with any of that from either Albuquerque or Alamogordo," Aaron said, "Are we looking in the wrong places or what?"

“Those were National Guard Armories,” Ron countered, “We need to look on some regular military bases.”

“I think we should go to Denver this next summer,” Bob suggested, “We could stop at Ft. Carson in Colorado Springs and pick up some of that heavy duty weaponry you seem to think we need Ron.”

“I’m all for it,” Ron said.

Ron immediately began to make a list of all the things he wanted. Most of it he’d only seen on TV, but if it was good enough for the military, it was good enough for him. He wrote down things like grenade launchers, grenades, rocket launchers, mines, body armor and every other thing he had seen on TV and could remember.

Aaron continued the subject at hand, their trip to Denver this coming summer. They could take the semis to Denver, hook onto trailers they found there, load them and haul them back. He suggested that they limit themselves to 2 trips per month with a rest period in between. They could see what they could get at Ft. Carson, but he didn’t intend to spend much time there hunting around for play pretties for Ron.

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The snowfall was nothing this year compared to the previous winters and they were able to get into the towns. Derek set up a program in each of the communities to get everyone trained in the use of the AR-15/M-16’s. He used the M-16’s from the Armory in Alamogordo as training tools and by the end of the winter had a trained cadre of men and women familiar in their use.

He located veterans among the population of each community and put them in charge of the training. There was very little resistance to the training, given the attack by that bunch from Albuquerque. The people were loosely organized in military fashion into fire teams and squads and each community had its own company. That was how Derek spent his first winter at the Springs.

They had another wedding, of course, and it was another double wedding, marrying off the last of the teenagers. Ron must have had a case of that wine because he produced three more bottles for the celebration. They sort of combined Thanksgiving and the weddings and the last two of the assembled homes had new occupants.

They had a lot to be thankful for this year, having survived the attacks from the other cavern and the people of Albuquerque. Their lot in life had improved considerably, too. They had gathered a lot of food, weapons and other things they would need for the long-term. They didn’t really view the trip to Denver as a ‘must’ in terms of supplies, but the guys from Denver wanted to make the trip and strip their homes to recover the pos-

sessions they had been forced to leave behind. And, of course, Ron wanted all of those military goodies.

They spent a month or more planning the trips for the coming summer. They were stopping at Ft. Carson first, then getting the household goods and finally, begin to salvage Denver. They didn't figure that they would really run into any resistance in Denver, but if they did, their experiences of the past summer made their course of action clear. Share if they could, kill if they couldn't. And, because they were out of the caves, the winter seemed to pass more quickly again this year as it had the previous. The sky was so much clearer now!

In the first weeks of April, with their plans laid out and Derek's training as complete as he could make it, they set off in a convoy to Albuquerque and points north. They bypassed Santa Fe and Trinidad and Pueblo and made for Colorado Springs. They ended up spending three days at Ft. Carson, so great was their haul of armaments.

They loaded several military 5-ton trucks with weapons and several semi-trailers they found in the Colorado Springs area and dispatched the vehicles back to the 5 communities. They were armed to the teeth, even though they didn't expect any trouble in Denver. There was such an abundance of everything that Ron had everything on his list, and more. Derek took time to arm everyone with a M16A2/M203 and even spent some time using practice grenades getting his 'Commands' experienced using the weapons.

Bob supervised the emptying and loading of their personal possessions from their homes and Aaron and the others started to hit the warehouses. Derek had the four companies of guards organized more or less into a battalion and they picked up various military insignia at Ft. Carson and they passed out the rank insignia according to the lines of authority they had established.

The four company commanders insisted that Derek take on the role of Battalion commander so he made himself a one-star General. Battalion commanders are usually Lieutenant Colonels, so to compensate, he made the Company commanders Lt. Col's, the Platoon commanders Captains and the Squad Leaders First Lieutenants. It wasn't important, but that was how they did it.

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They had plenty of firepower from Ft. Carson on the way back to New Mexico so they concentrated on foodstuffs and repair parts for the things they already had. They didn't have to face the share or kill decision on this first trip and the convoy of repaired semi tractors and loaded trailers was very long when they finally set out for New Mexico about 10 days later.

Several of the trailers carried all of the component parts of a steel building they intended to erect at their Rattlesnake Springs community. So great was their haul this first trip, they brought along some new computers and software so that they could inventory all

that they had. And, although they had planned a trip to Denver every other week, they decided to make just four, or five, trips to Denver; one per month, depending upon the weather.

Gary was to stay behind on future trips; he was in charge of the warehouse and all of their goods. The folks from the other four communities helped and they had the warehouse erected in nothing flat. They got so busy, in fact, that the May trip to Denver was postponed until late June. They talked about making a run over to Holloman AFB, but Ron squashed that idea when he related that one of the bad guys he had questioned had said Holloman was trouble.

Derek took advantage of the downtime and postponed trip to begin to install defenses in all of the communities. They had quite an assortment of defensive weapons and had opted to leave offensive systems behind, including the LAV's and things of that nature. He had taken a lot of Humvees, however and some of them were equipped with TOW missile launchers.

He would have preferred a good old-fashioned Abrams tank, but they hadn't found any. The community defenses were in the care of the Company commanders and each varied their defenses in accordance with the characteristics of the individual community. All of the communities were equipped with TOW equipped Humvees, Mk-19 equipped Humvees, and the old standby, the M-2 .50 caliber machine guns. They had them both in the Humvee mounted version and the crew served tripod-mounted version. They also had a large quantity of the M240 7.62 caliber medium machine guns. Their munitions could be measured in the truckloads.

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Towards the end of June, they finally made the second trip to Denver. They noticed along the way that people were beginning to move back into the communities of Albuquerque, Trinidad, Pueblo and Colorado Springs. They stopped in each community and invited people to join them on their trip to Denver. Each community came up with a few people to make the trip because most of them were short on some supplies, Albuquerque, especially. (I wonder why?) The Company commanders had left half of their forces behind to guard their communities, but they still had 2 plus companies of troops and no one gave them any trouble.

They stopped again at Ft. Carson and armed the people from Albuquerque, Trinidad and Pueblo. The people from Colorado Springs had already been to the Fort, or so it seemed. They proceeded to Denver and when they encountered people, worked out a sharing arrangement. Among the things they took on this trip were another dozen doublewide mobile homes for the Rattlesnake Springs community and additional large capacity generators.

They didn't strip Denver completely, leaving behind lots of everything for the residents and for the people from the other communities that had joined them on this second trip.

They did, however, take a fair amount of industrial equipment so that they could reestablish bakeries, and other commercial businesses.

Gary had a lot of help and by the time they returned, he and his work force, which consisted primarily of the younger women, had used the folk lifts to move everything inside of the new warehouse and input everything into the computerized inventory system.

They had several thousand different items to enter into the system and it had taken a 24/7 effort to complete the task. The old man seemed to be in the height of his glory managing that inventory system and he had put in 18-hour days seeing that everything was just so, and the inventory was correct. It fit with his anal-retentive personality.

“Howdy, partner,” Ron said sneaking up behind the totally engrossed Gary.

“So, how did the trip to Denver go?” Gary asked.

“Good Gar-Bear,” Ron answered. “We have another large steel building to erect, a dozen more homes, all kinds of industrial equipment, etc. I think that this may have been our last trip away from the Springs this year.”

“Lots more for me to sort out and inventory, huh?” Gary responded.

“Hell, you love it and you know it,” Ron laughed. “Linda says you have been spending 18-hour days getting everything just so. Have you ever thought about seeing a Psychiatrist about your problem?”

“What problem is that?” Gary snapped.

“Your perfectionism,” Ron answered.

“Been there, done that,” Gary said. “He told me that it wasn’t a personality disorder, just a behavior disorder and that I should take advantage of it and use it to improve myself.”

“Yeah, right,” Ron shook his head. “So tell me, how do we stand?”

“Well, we have enough of everything to last us for several years, not counting what you guys brought back on this trip,” Gary summarized. “There’re 103 of those double-bottomed tankers of diesel fuel, so we have over 1.6 million gallons of diesel. We don’t have a lot of propane, probably 20,000 gallons or so, but we need bigger tanks to store it in.”

“I picked up some 30,000-gallon propane tanks for the community,” Ron said, “Did you forget that I was in propane for years?”

“Not really, but what good are empty tanks going to do us?” Gary said. “How many tanks?”

“Ten,” Ron replied.

“See what I mean,” Gary said, “We have capacity for 300,000-gallons of propane and only 20,000-gallons of propane.”

“Relax partner,” Ron laughed, “I wouldn’t get tanks without the propane to fill them. So, you get all of the stuff stored and inventoried and we’ll see to getting those new homes and buildings erected.”

The haul from Denver included not only the propane and industrial equipment, but round Butler style granaries and grain. They had industrial meat cutting equipment and absolutely everything a community could use. Gary had fortunately set up the inventory system to account for fixed assets and consumables and he spent the rest of the summer working 18-hour days getting everything sorted, categorized and input into the system. That kept him occupied and out of trouble.

With the additional equipment from Ft. Carson, Derek and his Company commanders were busy refining the defensive postures of the communities. Derek had it in his head that summer was the ‘safe season’ as he called it and that come winter, survivors who hadn’t done so well with their summer excursions to salvage supplies would be seeking out the communities that had had successful summers. Pretty smart for a man of his age, even his father had to admit. They put John in charge of the local security because he had a background in security back before the strike. They gave Kevin a figurehead position of John’s assistant and gave him an office to hide out in.

The Rock – Chapter 6 – Just Your Average Survival Situation

In many ways, the situation had changed from the just-trying-to-stay-alive situation of the early days after the strike to the routine TEOCAWKI scenarios described by so many authors in survival fiction. The early years had been rough and more than once they wondered if they would be alive come spring. The caverns had been their refuge and would be again if they were faced by an overwhelming force. They spent the remainder of the summer setting up the buildings, inventorying their goods and dividing the goods between the caverns and the warehouse. They held an election of sorts and Aaron was elected as the community leader. The old guys from California were sort of an advisory council for lack of a better name.

Curiosity was getting the better of them and they wondered what was at Holloman AFB that made the place so dangerous. So, once they had all settled in for the winter, Derek and a small force set off to Holloman to find out. He didn't take a large force, figuring that a large force would get them fired upon by whoever was taking the defense of the base so seriously.

The force that he did take was outfitted in new BDU's and he made sure that every person was a veteran of a previous military conflict. Had one not known that the group was actually made up of civilians, one would surely have mistaken them for a well-disciplined military unit. Derek made certain that the group was properly outfitted, down to the small flag on his Humvee with the star of a Brigadier General.

The ruse worked, after a fashion, and they didn't get shot at when they approached Holloman AFB. The sentries even saluted him, before they disarmed him and his two squads and led them off to meet the person in charge of the base.

George W. Bush was born in 1946 and was just a little more than 3 years younger than his father. He was more or less in charge of Holloman, but Derek barely recognized the man, he looked older than dirt. His troops were detained by military police and the Secret Service and Derek was shown in to see President Bush.

"I don't seem to remember a Brigadier General by the name of Olsen," Bush said, "What outfit were you in command of?"

"I wasn't in charge of anything Mr. President, I was a Sergeant in the Army when the strike came, stationed in Kosovo," Derek replied.

"So you made it back ok?" Bush replied, "I hadn't heard how that all came out."

"We all made it back ok, Mr. President," Derek explained, "And when I got to Ft. Stewart, I grabbed a Hummer, a weapon, some food and fuel and bugged out to take care of my family."

"Then you're a deserter?" Bush responded.

“Technically, yes, Mr. President,” Derek answered defensively, “But there doesn’t seem to be an Army, so I don’t think that means much. Anyway, my enlistment was up a few weeks later.”

“Probably not,” Bush agreed. “Tell me what it’s like out there. We’ve never been off the base since we holed up here back in 2004 and the radio reports don’t give me much information.”

“I assume that you know that you’re the President of a nation of about 20 million people,” Derek said. “Maybe 30 million survived the first winter, but about a third of them died the following summer, fighting over supplies. Most of the population spread out along the southern states, but since the sky has been clearing, people are beginning to move back north. We found people as far north as Denver, this summer.”

“That’s pretty much what we’d figured out,” Bush said, “So what’s with the General getup?”

“We formed a defensive force of sorts with the residents of Roswell, Artesia, Carlsbad, Whites City and our new community, Rattlesnake Springs,” Derek explained. “We have a defense force of about company size in each of the communities and I got elected as the Battalion commander. I didn’t see that it made much difference if I were a Lt. Col. or a General, so I pinned on a star. Does that bother you, Mr. President?”

“I’m only President because there’s never been an election to replace me,” Bush said. “Kerry would never step forward and take the job. Hell, I don’t even know if he’s alive. I do have a problem with the star. However, I wouldn’t have a problem with you being a Lt. Col.; since you deserted, you still have a military obligation to serve, so it might as well be as a Lt. Col. as a Sergeant.”

“I don’t know as I want to be a Lt. Col. in the Army,” Derek objected.

“Your choice Sergeant Olsen,” Bush chuckled, “You can either be a live Lt. Col., or a dead Sergeant, shot for deserting his post.”

“Being you put it that way,” Derek said, “Sir, yes sir.”

“Now Colonel, how about you figure some way to get me out of this damned place, I’ve got a country to save.”

“The country has been doing pretty well without you, Mr. President,” Derek said.

“I figured that Colonel, but I am getting awfully sick of this shelter,” Bush replied. “You wouldn’t want to be President would you?”

“No sir,” Derek laughed. “I’ve got to get used to being a Lt. Col. first.”

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Bush had the military police and the Secret Service (SS) return the weapons to his new 'Army' and Bush and the SS followed the people back to Rattlesnake Springs. When they got to the Springs, Derek immediately introduced Bush to Aaron and the council. On the way back, they were forced to stop in every community so Bush could press the flesh. The most common question asked of him was, "Where in the hell have you been hiding out for the past 5 years?" Once safely tucked away at Rattlesnake Springs, and having met all of the people, the three old geezers from Palmdale started to ask Bush all manner of questions.

"So tell me George," Gary asked irreverently, "Did we win the war on terror?"

"Everyone is allowed one little mistake," Bush replied. "I see that you folks have been out helping yourselves to whatever the country could provide."

"If not us, then who?" Aaron responded. "This isn't 2004 Mr. President. It's 2009 and we aren't that far removed from the conditions that the founding fathers found themselves in back in the late 18th century. We have some of the benefits of modern technology, like electricity and such; I expect that most people do by now, but the infrastructure of this country was pretty much abandoned until this past summer. How are you going to start to rebuild the nation?"

"From the ground up I guess," Bush replied. "There seem to be local governments and we need to reestablish the state governments."

"What about a federal government?" Aaron continued.

"The original concept of the founding fathers was a weak central government," Bush answered, "I think that that is what we have now, a weak or non-existent central government. I see no reason to change that. Besides, the primary purpose of a central government was to provide for the common defense and if what we hear on the radios is true, there is no one in the world that poses a real threat to this country at the moment."

"What about promoting the general welfare and all that other crap?" Gary asked.

"The states can do that far more efficiently than a federal government," Bush replied. "I've had five years to think about this, you know."

"Still pushing that conservative crap about women not having freedom of choice?" Linda asked.

"Personally, I believe in that 'crap' as you call it, but no, the government doesn't need to meddle in personal affairs. I've often wondered if that rock hitting the planet wasn't God giving humanity a wakeup call of sorts," Bush replied.

“Well Mr. President, I don’t envy you the task that lies ahead of you,” Ron said. “Only the strong survived and there probably isn’t such a thing as liberal anymore among the 20 million or so Americans. We’ve all been mugged, as it were.”

“Good,” Bush replied, “If that’s really the case, there won’t be much interest in a federal government and we can find a replacement for me and I can retire back to my ranch in Crawford, assuming it’s still there.”

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With Bush out of hiding, the people there in the area decided to butcher some beef and throw a Texas style barbeque. During the barbeque, Bush took his new Lt. Col. aside.

“What did you do in the Army?” Bush asked.

“I was a gunner on an Abrams tank with the Iowa National Guard until we got sent to Kosovo,” Derek replied, “Over there, I was an MP.”

“If you could rebuild the Army from the bottom up, how would you change it?” Bush asked apparently genuinely interested.

“I would eliminate a lot of ranks,” Derek said, “There would be one General rank, one Colonel rank, a Captain rank and a Lieutenant rank. There would be 4 enlisted ranks, Recruit, Soldier, Sergeant and Sergeant Major. Then, I’d give the troops a living wage and decent benefits.”

“How big of an Army would you have?” Bush continued.

“Just enough to do the job,” Derek replied, “And, I tell you something else I’d do different. If any country threatened this country, I’d wipe them off the map.”

“What about diplomacy?” Bush asked.

“May I be blunt?” Derek asked.

“I asked, so answer,” Bush said.

“Diplomacy is the tool of those who don’t want to fight,” Derek said, “So is a nuclear weapon. If someone wants to fight that badly, wipe them out; it is strictly survival of the fittest.”

“Pretty extreme Colonel,” Bush responded.

“So tell them to be good boys Mr. President. They won’t believe you, but go ahead,”

Derek replied. "On the other hand, if you wipe out one country, the rest will fall in line. Just be sure of your facts before you start the war next time."

Bush had to admit that the boy had a point. The only trouble was getting reliable intelligence in the first place. That was what had gotten him into trouble in Iraq.

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After the barbeque, Bush sent for a large contingent of troops from Holloman and made his way to Texas. He issued an Executive Order from Crawford, after they'd recaptured the ranch, formalizing Derek's commission and classifying the volunteer unit as a Reserve Army unit serving on active duty.

He sent out his minions trying to reorganize the country. It was the line like in the movie Big Jake, more often than not, "I thought you was dead." They announced federal elections for November of 2010, but first they had to get there. Bush refused to run for office and there was some question whether he could do so legally. But, there was no Supreme Court to resolve the issue. He had only been elected to a single term in office and never mind the intervening 5 years, he claimed he could run but didn't want to.

The residents of Rattlesnake Springs wanted no part of politics and declined numerous attempts to get them to participate in the 2010 elections. Besides, they said, November 2010 was a long way off. Derek was allowed to go to Ft. Hood Texas and return to the Springs with a tank company. He didn't need anything else to protect the people. Those 120mm cannons beat the crap out of those puny little 25mm guns others had urged him to get.

Besides, he was an Army man, not some Marine and anything that went over 45mph gave him a nosebleed. He did make one concession to his hero, General George S. Patton, and found a nickel-plated .45 Colt revolver with those politically incorrect Ivory grips.

The weather was actually warm enough that winter that they could work outside. It no longer snowed much in their area. They took advantage of the situation and upgraded their security 10-fold. They were still working on their wall when trouble blew in from El Paso, TX.

That trouble came in the form of a small group of bad guys who took one look at the tanks and backed down route 418 and turned back north on US 62/180 looking for easier pickings. A sentry radioed Whites City and they took out after the people with their tanks. They were only 5 minutes behind the thugs, but by the time they caught up, all there was left for them to do was bury the bodies of the thugs.

Derek repositioned his tanks right on US 62/180, covering their south flank. He took 2 more to Carlsbad and likewise blocked the southbound lanes of US 62/180. Four went

to Artesia to block east and west US 82 and 3 went to Roswell to block east and west US 380 and US 285. The folks were secure behind an Iron Curtain of their own making.

They went ahead and finished the wall enclosing the Rattlesnake Springs campground/development, making sure to leave room for another 50 homes. They used slip form construction and made the wall 10' thick. There wasn't exactly a shortage of rock for the wall and concrete was easy enough to get. They didn't really have to improvise much; Derek had but to ask and sooner or later a convoy of trucks would show up with whatever he wanted.

Gary told Derek being that he was so creative; he should find Al Gore and get the Internet reinvented. Derek said he'd work on it, but he was worried about his Dad. Dad seemed to be getting senile. For instance, he positively insisted that there was a flying saucer at Roswell. Ron told Derek not to worry about Gary, he was just putting Derek on, but down deep inside, he wasn't all that sure anymore.

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Gar-Bear was just clowning around. That long, tiring summer had practically worn him out. They had everything sorted, categorized, stored and input into the inventory system and he was too tired to do more than make jokes. The printout of their inventory ran over 10,000 items and was 200 pages thick. It had been a task worthy of a corporate MIS department, yet had been accomplished by a tired old computer hack from California and a group of young women. And, not a single item went into or out of inventory without a paper trail being generated.

Ronald was content to play with his new guns. At Ft. Carson, they'd come up with some sniper equipment and Ronald had himself a M-24 rifle with the M3A riflescope, a AN/PVS-10 Sniper scope and thousands of rounds of the special M-118LR ball ammunition.

What's more, Ron had a M82A1A Barrett rifle with a Unertl 10-power scope manufactured by Unertl, too, with a BDC to match the trajectory of .50 caliber Raufoss Grade A (DODIC A606), which was the standard operational round, of which Ron had several cans. Ron hadn't fired either gun. You see, he also had a Barrett M82A1M/M107. That rifle also came with a Unertl sight and an armorer modification and an AN/PVS-10 Sniper scope. Man, what an arsenal and all in the hands of a blind-in-one-eye, 67-year old man who didn't want to shoot the guns and wear out the rifling.

Clarence was content to sit at home and 'read' novels taken from a library. He was 69 and had wanted to read the classics before he died. He had never before had either the time or the books. Now he had both and was intent on making up for lost time. His problem was that the two years of living in a dimly lit cave had taken a toll on his eyesight and he had to contend with Lucy reading the books to him.

The three of them got together to commiserate.

“I’m too pooped to pop,” Gary admitted. “I’m too old to be playing computer whiz.”

“Well, I finally got all of those books and my eyes are bad,” Clarence announced.

“Let’s go shooting,” Ron suggested.

“What, and get all of your pretty new sniper rifles dirty?” Gary teased.

“Let’s face it fellas,” Ron responded, “The three of us are just sitting around waiting to die. We didn’t go through all we’ve gone through in the last 5 years just to do that, so come on, what do you say let’s get those rifles sighted in.”

It was a good thing all of those rifles had high power scopes and they were only shooting at 100-yards, they managed to hit the targets with most every shot. They had used the filters off of cigarette butts as ear protectors and they should have known better. The sharp crack from the unsuppressed Barrett’s did a real number on their hearing. While they were shooting, they noticed that it was fairly warm for this time of year and they were only wearing long sleeve shirts. What on earth was going on with the weather?

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The men wouldn’t have liked the answer had they known it. The accumulation of greenhouse gases in the atmosphere had been 100 times what man had poured into the atmosphere during the previous 100 years. In the southern hemisphere, the heat had been stifling, drying out the vegetation. Lightning strikes had started fires and the rainforests that man had failed to burn off had burnt off as an indirect result of the strike. The smoke had just further fueled the greenhouse gas accumulation and the planet was now getting very hot. Where just 5 years earlier, most of the northern hemisphere was covered in snow, the sun was now beating the soil and drying everything out.

Nature has a way of remedying cycles such as these. If there were still an internet, you could search on the term ice age cycle and find out all sorts of interesting theories. Those theories range from an 11,500-year cycle (it was 11,500 years since the last ice age) to a 100,000-year cycles caused by shifts in the earth’s magnetic fields. Consider this:

Fluctuations in the amount of insolation (incoming solar radiation) are the most likely cause of large-scale changes in Earth’s climate during the Quaternary. In other words, variations in the intensity and timing of heat from the sun are the most likely cause of the glacial/interglacial cycles. This solar variable was neatly described by the Serbian scientist, Milutin Milankovitch, in 1938.

There are three major components of the Earth's orbit about the sun that contribute to changes in our climate. First, the Earth's spin on its axis is wobbly, much like a spinning top that starts to wobble after it slows down. This wobble amounts to a variation of up to 0.5° to either side of the axis.

The amount of tilt in the Earth's rotation affects the amount of sunlight striking the different parts of the globe. The greater the tilt, the stronger the difference in seasons (i.e., more tilt equals sharper differences between summer and winter temperatures). The range of motion in the tilt (from left-of-center to right-of-center and back again) takes place over a period of 41,000 years. As a result of a wobble in the Earth's spin, the position of the Earth on its elliptical path changes, relative to the time of year. This phenomenon is called the precession of equinoxes. The cycle of equinox precession takes 23,000 years to complete. In the growth of continental ice sheets, summer temperatures are probably more important than winter.

And, consider this:

NASA has estimated that the Earth has a 1 in 10,000 chance of being hit by a large comet or meteor which would conceivably throw enough gas and dust into the stratosphere to begin another Ice Age. This can be compared to a 1 in 9,100 chance of being struck by lightning, a 1 in 12,000 chance of being murdered within a year, and a 1 in 4,600,000 possibility of dying in a plane crash. As outrageous as the idea may seem, the only element remaining that could possibly set off a new Ice Age could be a singular event such as the ones previously mentioned. All of which the human race could not realistically prevent or control, but only delay the final conclusion for a short amount of time.

At least 10,000 years have passed since the last great Ice Age, roughly the amount of time between the average inter-glacial periods of which the longest lasted at most 12,000 years. Therefore, it is feasible that within the next 5,000 years an Ice Age will occur that can only be hastened by the effects of humanity, which will reach a population of 20 billion in 2030 causing only further upheaval in the environment.

Simply put, we're overdue on this particular loan on time and it can only be extended for an increasingly short interval. Perhaps the only question that remains is, 'what will get us first?' Whether it will be war and nuclear weapons, over population, disease and viruses, Armageddon, or another Ice Age, the outcome does not look good even for the brightest of optimists.

What was the name of that movie that came out back in 2004? Was it called *The Day After Tomorrow*? It seems that at least the filmmakers found something to make a movie about, an Ice Age with a rapid onset. Yeah, but that was just a movie, wasn't it?

Consider the guest column by Doug Fretty in the Brown Daily Herald of March 2, 2004. "PARIS – Peter Schwartz and Doug Randall may have watched the trailer for *The Day After Tomorrow* one too many times. This upcoming film by sci-fi whiz Roland Em-

merich depicts nations submerged by oceans and cities overtaken by glaciers. If only it were just the stuff of science fiction.

“In a report commissioned by the Pentagon, Schwartz and Randall claim that such meteorological catastrophes may be less than a decade away. Melting glaciers in the North Atlantic, they say, could release enough fresh water in the coming years to halt the flow of the Gulf Stream and other carriers of warm salt water. The result would resemble Armageddon: Great Britain plunged into an arctic freeze, vast parts of Florida and Southern California flooded, mass starvation in China, 400 million people driven from their homelands by famine and drought.

“Coupled with the escalating nuclear arms race, the Pentagon warns, such conditions would inevitably engender aggression. ‘Disruption and conflict will be endemic features of life,’ write Schwartz and Randall, predicting bloody disputes over land and water in Southeast Asia and the former Soviet bloc. ‘Once again warfare would define human life.’

“These findings, published in Fortune magazine by Pentagon defense adviser Andrew Marshall, is a blistering embarrassment for the Bush administration. The document rejects Bush’s position that the greenhouse effect is ‘a theory’ and calls for the immediate reduction of carbon dioxide emissions. Marshall, known to his peers as ‘Yoda,’ is not the kind of man our cabinet typically ignores. Yet many defense chiefs struggled to keep his report classified.

“Marshall’s troubling announcement coincides with the Union of Concerned Scientists’ charge that the Bush administration distorts scientific facts for its political convenience. The Union’s open letter to the president is signed by 20 Nobel laureates. The scientific community seems to be raising the volume on its plea: Time to get serious about climate change!

“Doomsday scenarios as described by Schwartz and Randall will not come gradually; an ocean current does not shift in small, linear increments. Rather, there is a ‘tipping point’ for fresh water saturation, a bright line separating order and chaos. The environmental policies of our nation and others will decide whether that threshold is crossed.

“It’s unlikely that Bush, notoriously beholden to the fossil fuel industry, will overhaul his environmental plan any time soon. Shutting down the Kyoto Agreement was merely the beginning; the White House routinely shuns carbon dioxide regulation and fails to punish companies who violate the already lax emission codes of the United States.

“Powerful Democrats, however, are being courted for reform by a diverse watchdog group called the Apollo Alliance. Uniting such unlikely bedfellows as the UAW and the Sierra Club, the Alliance has drawn up a plan to phase renewable energy into the American economy. Expect this plan, which diverts \$70 million in corporate welfare breaks toward ‘clean energy’ infrastructure, to wield some force at the party’s Boston convention.

“Frontrunner John Kerry has endorsed the Apollo Project, and all Democrats would be smart to embrace the Alliance with open arms. The Project is a job-creating, emissions-dousing machine that could hold our planet on this side of the tipping point. And besides, nothing says ‘swing vote’ like a pro-labor, tree-hugging millionaire. Right, John?”

“Douglas Fretty ‘05 dislikes the Paris bureaucracy.”

I guess you get the picture, right? There is a theory that a global warming caused by excess greenhouse gasses in the atmosphere could cause an Ice Age. The strange thing about that theory was that Gary had seen a presentation on one of the Discovery family of channels about that very theory. He saw the program years before Schwartz and Randall wrote their paper or the movie was made.

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Gary tried to convince everyone that the heat wave was deceptive and that it could actually indicate the beginning of a new Ice Age. Some of the folks thought he was still clowning around and others were convinced that he was just senile. So, Gary shut up about it. He could be wrong, he admitted to himself, but he didn’t think so; and he figured he might not live to see it anyway.

Gary did know one thing, for sure. If a new Ice Age were coming, it wouldn’t be like they showed it in that movie. There would be a sharp reversal in the warming trend followed by years of cooling and a gradual buildup of ice. Gary was wrong; not as wrong as the movie, but wrong, nonetheless.

The folks hadn’t seen as much game, it had probably returned north when the sky cleared, but because they had beef, pork and chicken, they paid no particular notice to the absence of the game animals. To the extent that anyone even gave it a second thought, they attributed the change to hunting pressures. Life was taking on a normalcy during the winter of 2009-2010. The three old men got into shooting big time and by the time spring rolled around could hit a target consistently at 300-yards. It surely had been a warm winter, but when spring came it didn’t warm up nearly as much as they expected.

Aaron suggested that except for transporting diesel fuel and propane, and locating additional doublewide mobile homes, they didn’t need to scavenge much this summer. The folks from Denver had spent a lot of their winter analyzing the inventory and had highlighted problems they perceived were in need of fixing. They had a list of the shortages and said they could fit it all in one semi-trailer.

So, they hooked up to an empty trailer, the empty tankers and gathered the group of scavengers from the communities and set off for Albuquerque and Denver. They filled the tankers with diesel and propane in Albuquerque and sent them back to southern

New Mexico. They continued the trip to Denver to get the few things they needed and more mobile homes.

Filling in their shortages wasn't at all difficult and the semi was soon heading south with more goods for the logistics people to sort, categorize, store and record. Finding new mobile homes proved to be a harder task and they even had to disassemble some erected models to find another dozen homes for the development. Derek went along on the trip and although he couldn't find any more of the sniper rifles like Ron had, he did find 2 Super Match M1A rifles for his Dad and Clarence. He did notice that Denver was cooler than the previous year, but didn't give it much thought.

The development at Rattlesnake Springs had a goodly number of empty homes and was getting more. They had been very selective about whom they allowed to move into their fledgling community. Most everyone was a survivor, but they only wanted survivalists with skills they could incorporate into the community with diverse skills. They couldn't have cared less about ethnicity, religion (no Muslims, though) or things of that nature.

They were sort of looking for the butcher, the baker, mechanics and the like. They wanted a real carpenter or two and a doctor if they could find one. Aaron had hooked on to two of those portable classrooms in the Denver area and had towed them back. They used one for a medical clinic and the other as a security/business office. The only building they wanted, but didn't have was a Community Center.

"If you really want a building for a community center," Aaron pointed out, "We could go back to Albuquerque and/or Denver and see about another prefabricated steel building. We could probably use some medical equipment for that clinic, too. Why doesn't someone go up to Roswell and talk to the doctor up there? Maybe he can give us a list of what we need for our clinic."

"Sounds good to me Aaron," Ron concurred, "But we need a doctor as much as we need medical equipment. The building for the community center doesn't have to be as big as the warehouse either, if that would help. If there are any more of those portable classrooms, you might want to drag a couple more of those back too."

"There are a few things I would like to see you get, too," Gary suggested. "You're the telephone guys, how about you get some phones to connect all of the homes and some more computer equipment?"

"The phones should be easy enough," Bob said, "But what did you have in mind for computer equipment?"

"Nothing special," Gary said, "We should put in a server and a network connecting all of the homes. You're going to have to put in wire for the phones, so we might just as well string some category 5e cable and put in some repeaters and build a network. Take Derek along, he will know what to get."

After they'd gotten a list of equipment from the doctor in Roswell, they set off for a second trip to Denver. Gary wasn't looking to build a domain/client network, he was thinking more peer-to-peer. The server he had in mind would just be a file server for the inventory records and for people to back up their hard disk drives onto. It would be a totally closed system within the community. Laptops would do just fine he had told Derek, and be sure to get plenty of software. He also warned Derek that since they didn't have anyone who qualified as a computer specialist to keep it simple.

The trip back to Denver really bore fruit. They found a 60'x100' foot steel building to use as a community center. They picked up a business telephone system, complete, and capable of handling up to 100 stations. They gutted a bar and had a bar and back bar and tables and chairs and a jukebox. They cleaned out a couple of liquor stores. They also gutted a dentist's office and took a chair and all of his equipment. A hospital provided them with a portable X-ray machine, 8 hospital beds, examination tables, a surgical suite and everything the doctor had suggested and more. They hooked on to 4 of the portable classrooms and towed them back.

Derek didn't have all that much trouble coming up with regular computers, laptops and software, but he couldn't figure out what his Dad had in mind for a server. Bob took Derek to his company's offices in Englewood and they scrounged around in the MIS department. Derek found a computer in a full tower case and read the bill of lading. The unit was a dual-processor (Xeon) unit with six HDD's set up in a type 10 RAID array. He took that and all of the new software he could find. It would be up to his Dad to figure this one out. Category 5 cable was easy to find, but Gary had been very specific about category 5e cable. It took them a day before they came up with some spools of the bulk cable and the appropriate connectors and tools to install the connectors.

They stopped in every community on the way back looking for a doctor or dentist. It just wasn't their day, however, and they came home empty handed with respect to medical professionals. They did get the doctor to Roswell to come down to the development and help them set everything up, however. They set up an 8-bed hospital ward in one classroom. In a second trailer they set up the operating suite, the dentist's office, examination rooms and an X-Ray room. And, they began to 'advertise' on the Ham network for a doctor and dentist.

The Rock – Chapter 7 – Doctor, Doctor

Eventually they began to get responses to their requests for a doctor and dentist. The responses came from the Los Angeles area. An MD, who had been in his 3rd year of residency when the strike came, had been looking for a new place to live. 'As far from California as he could get' or so he said. Having not finished his 3rd year, he had been forced to work as a Physician's Assistant, but he wanted his own practice. They offered him and his RN wife a home, a hospital and a practice. He was on the way. A retired Dentist who was also a Ham was intrigued by their offer and he, too was offered a home and an exclusive practice. He said he'd think it over, but showed up a month later.

Rattlesnake Springs was a lot closer than Roswell for some of the people in the area and the doctor and dentist soon found themselves with more patients than they could imagine. Everyone at the Springs was given a complete physical for the first time in 5-6 years and all of those bad teeth were repaired. Apparently the rugged living agreed with everyone, aside from making minor adjustments to their medications, the doctor pronounced them all fit. Unfortunately, the dentist couldn't come up with crowns for their teeth and teeth in need of crowns had to be pulled.

Rattlesnake Springs, as a community, was coming together. They had a doctor, a dentist, 2 nurses, had found themselves a baker and a butcher an even a computer specialist who undid the mess that Gary had made of the computer network and set up a proper network. Nothing fancy, but it worked a lot better than his client/server network worked much better than Gary's peer-to-peer network.

The telephone system had been installed for the development and even had 3 outside lines to Whites City. They had several applications from preachers looking for a new congregation, but invariably when they got to asking, few of the candidates were non-denominational and those that were tended to be far too fundamentalist for their liking. A couple of foremen for construction contractors joined the community and they had their building tradesmen.

It was strangely cold that summer of 2010, too. Only Gary gave that much thought, however. He suggested that they were in for one hell of a winter, but they didn't believe him.

True to his word, the President moved from state to state, helping the people to restore some form of state government. It was up to the people to establish their own governments, he told them, but he would offer advice, if they wanted it. The 20 million or so survivors were a hard lot and aside from putting together state assemblies or similar organizations, wanted no part of a new federal government. That was fine with Bush; he resigned and returned to Crawford.

They had quite a crop of children at the Springs, too. All of those teenagers had grown and married and were fruitful and multiplied. Ruth, more than anyone else, was happy that they finally had a doctor even though she turned out to be a pretty good

nurse/midwife.

◦

The summer of 2010 proved to be the last summer that people moved back up north. The Gulf Stream was already submerged although no one had the slightest idea. It was nature healing itself. The excessive greenhouse gases opened the hole in the ozone layer over the South Pole to the point where it extended to 60 degrees south latitude.

The ice cap over Antarctica was beginning to melt. It wouldn't quite flood the coasts as badly as predicted, but the fresh water did halt the flow of the Gulf Stream. The predicted deaths in China never happened, there was no one alive to die, but they would have. In fact, the effect was far less dramatic than the movie showed. The world simply began to cool off.

The cooling had an interesting effect. All of that water that evaporated started to fall as rain and it just didn't rain in the southern hemisphere, but everywhere. That further cooled the atmosphere. And, in the northern hemisphere, as fall became winter, the rain became snow. It was a sharp departure from just a year before when it had been a warm winter. It wasn't cold enough yet for a lot of snow and most of the moisture fell in the southern hemisphere rather than in the north, but...

"I tried to tell you it was going to snow again," Gary protested.

"It's not even deep enough that you need a shovel Gar-Bear," Ron laughed. "Five years ago it got 20' deep."

"And maybe five years from now it might get 40' deep," Gary snorted. "Look, we have enough equipment that we could completely wire the caverns so we wouldn't be in the dark. All I'm suggesting is that we get prepared, just in case."

There were those awful 3 words again, 'just in case'. Every time someone uttered them it was like an omen of bad things to come. Ron had to admit that Gary did have a point. They already had a substantial amount of food in the caverns, just in case, so why not make them ready just on the off chance that Gary was right. The beds and such were still in the cavern; they had started out with new furniture in the mobile homes and then ended up with extra because the folks from Denver had brought their household goods back. Before he was done thinking about it, Ron had talked himself into implementing Gary's suggestion, and now was as good a time as any to begin.

First Ron figured he had to talk Clarence into the idea. Clarence was resistant, saying he'd had enough of living in a cold, dark, and damp cave to last him a lifetime. Ron didn't press because Clarence usually came around. Instead, he got out the map of caverns they had made and the inventory printout. He spent weeks figuring just where to put everything. The caverns were immense and there was more than enough room for everything except the diesel and propane storage. But, he had an idea or two how to

solve that problem. He even went so far as to get one of David's boys to help him map the northern cavern.

o

Ron found a branch cavern in the northern cavern that was 135' long, 60' wide and 35' high as near as he could estimate. The cavern was very near the tunnel that they had blocked off in the early days. He calculated that the cavern had a gross volume of about 283,500 cubic feet. He multiplied by 7.5 convert the space to gallons and came up with over 2.1 million gallons storage capacity. What he had in mind was to line the cavern with concrete and turn it into a storage facility for their diesel fuel. The entrance to this cavern was big enough, once the camouflage was stripped away, to almost drive a truck through.

"Clarence, can I talk to you for a while?" Ron asked, "I want to bounce some ideas off you."

"I always have time for you Ron," Clarence smiled, "What's up?"

"I got some help and mapped that northern cavern," Ron explained. "There's a cavern room there large enough to store all of our diesel fuel."

"Why would you want to do that? And how?" Clarence asked.

"Look, I've been working on Gary's idea..." Ron started.

"I told you I ain't moving back into those caves," Clarence cut him off.

"Yeah, yeah, yeah," Ron retorted, "I wasn't thinking about us as much as our supplies. We have diesel tankers strung out all over the place. I figured we could line that cavern with concrete to seal it off and store our diesel in there."

"Did you ever spill oil on your driveway Ron?" Clarence asked.

"Yeah, so what?" Ron replied.

"Soaked right in didn't it?" Clarence was making a point.

"Yeah, so?" Ron became defensive.

"Your idea is good as far as it goes, Ron," Clarence responded, "But we ought to line that room with plate steel. It wouldn't take much; the concrete and the walls of the cavern would support the weight of the fuel. I remember seeing some $\frac{1}{4}$ " or $\frac{3}{8}$ " plate up in Albuquerque. It would be a lot of work, but we could line the storage with steel."

With that, Ron realized that Clarence was aboard. They could bring back propane tanks

from Denver, there were plenty, could convert the branch cavern to a 2 million gallon fuel storage. Ron also had it in mind to move all of the supplies to the north cavern complex and put the generators and everything there. That would limit their exposure to any more bad guys. After a daylong session debating with the Denver fellas, he had everyone aboard and the contractors started immediately on converting the chamber to a fuel bunker.

◦

They got a fair amount of snow that year, but it was nothing like back after the strike, maybe a foot, more or less. By the time spring came, the contractors had managed to complete the concrete work and the bunker was ready for its lining. They had moved the extra generators into the northern cavern, too and they were just waiting to be wired up and fueled. They had discovered a crack that ran all the way to the surface from the cavern and enlarged it, planning to use it for fuel lines and generator exhaust. Things were coming along.

It was a large convoy that set off for Albuquerque and Denver in the spring of 2011. A man from Artesia and another from Roswell were welders so they had the means to complete the lining. A few semis returned from Albuquerque with the plate steel, it was $\frac{3}{8}$ " , and the welders got busy welding the lining. In Denver, they picked up 5 more of the 30,000-gallon propane tanks, massive amounts of electrical wiring and lighting. Sharon used to grow violets and they had fashioned grow lamps using 2-bulb, 4' florescent fixtures. They used one cool white bulb and one warm white bulb to duplicate natural sunlight. It must have worked; Sharon had won awards at more than one violet show.

No sooner than the welders had finished than they began to fill the fuel bunker. The work went on non-stop and they eventually got all of the fuel transferred, the lighting in and the generators online. The propane tanks had been very difficult to get into the cavern, but they had managed. They transferred the propane to the new tanks and relocated 5 of the old tanks, transferred propane a second time and moved the last 5 tanks. It had been a long summer, in terms of the amount of work they'd done, but their fuel and food supplies and generation capacity was all safely tucked away in the northern caverns. If they hadn't had a lot of help from the communities, they wouldn't have gotten the job done.

◦

Derek continued to work with the security force. The commanders of the Roswell Company and the Carlsbad Company were retired Gunnery Sergeants and they weren't particularly comfortable being officers. But they had whipped their companies into superb fighting units. They hadn't had anyone to fight, but if they ever did, they were ready. The commanders of the Artesia Company and Whites City Companies were ex-Army. One had been a commander of a tank unit at one time. Derek gave the extra Abrams tanks to the ex-armor commander, the fella from Whites City, and everyone trained and trained.

They had so many light fixtures and so many bulbs that they decided to try an experiment. They created a vast area of lighting with the improvised grow lights and added a little heat from propane heaters. They put the lights on timers to duplicate day and night and planted crops in soil they had dragged in and enriched with manure. Voila! They could produce vegetables year round. And they wouldn't have to dodge rattlesnakes anymore.

Ron didn't say anything to Clarence, but they converted the makeshift quarters in their original caves to nice, habitable living quarters, just in case. When all of the supplies had been transferred to the northern cavern, the warehouse had been dismantled and moved outside of the walled in area and reassembled, making room for lots of additional houses. A second medical facility was created in extra space in the cavern originally occupied by the Colorado people. The convoys had been continuous, hauling in extra equipment, supplies and fuel. Their inventory of supplies grew as Aaron and the guys brought in spare parts for everything.

The snow came a little earlier in the fall of 2011 and it was a little heavier. They all charged it up to seasonal fluctuations and Gary just kept his mouth shut. It didn't matter anyway, they could live above ground or underground and with the lighting scheme, it didn't make one hell of a lot of difference. Ham radio reports indicated that people hadn't moved much farther north than mid-America, finding that the winters further north were getting to be troublesome.

One of the things that Aaron and the others involved in the supply operations had discovered was that absent the government to maintain and repair the roads, travel was becoming difficult. The roads were falling into a serious state of disrepair. Consequently, they opted to bring in supplies primarily from Colorado. Later, if the roads shelled out, they could still try and get fuel from Albuquerque. It wasn't that the roads were so heavily traveled, but the simple fact that 7 years of no maintenance of the roads that were subject to freeze and thaw was taking its toll.

◦

Gary had a map of the US that he marked all of the Ham radio contacts on. He had noted the steady progression northward of the radio contacts in the time immediately following when he established contact with Lee up in Arkansas. The contacts had, in isolated cases, been as far north as Iowa, Illinois, Indiana and Ohio. More recently, however, those contacts had dropped off the map in their northern locations and had resurfaced further south in places like South Carolina, Georgia and Arkansas. He wondered if that signified that he was right about the coming ice age.

Normally an ice age lasted over 10,000-years. However, this series of events was not the norm, having been triggered by the asteroid strike and subsequent events. And in any event, the previous ice age had only gotten about as far south as Iowa. At least

that's what Gary had been taught in the geology class he'd taken back in 1965 at Iowa State University.

Besides, they were in southern New Mexico, not all that far from the Mexican border, and they didn't have much to fear. Gary wouldn't have admitted to anyone else, but he figured the 20' snowfall of 2004 was an extreme anomaly and that even if they got to an ice age, they wouldn't get nearly that much snow.

If Gary had told Ron that we're going to get 8' of snow in 5-years, Ron probably wouldn't have reacted as he had. However, the results of Ron's 9-month long project had been dramatic. It was almost as if the caverns were islands where they had all of the essentials carefully protected and stored away. With the experiment with growing food, they were no longer subservient to a fickle Nature and could grow food the year round. Some of the foods, like the tomatoes, had that 'hot-house' flavor, but they had been eating 'hot-house' tomatoes for years before the strike.

o

During the fall of 2011, a biker had shown up in Roswell and he had mentioned that he was looking for a Gary Olsen. He had a beard that went almost to his waist and hair just as long. He was riding a Harley Davidson motorcycle that probably dated back to 2000. People stayed upwind of him, but they directed him to Rattlesnake Springs. The guy didn't appear to be much of a problem, he wasn't threatening in any way, so they figured it was none of their business. They did contact Derek and tell him that a biker was looking for Derek's Dad.

Derek met the biker when he pulled in to the Rattlesnake Springs development. At first there was disbelief and then a lot of hugging with Derek holding his breath. Derek took the man to his home and made him take a shower. Then, he took him to the beautician and had his beard cut off and his hair shortened by a foot or more. Underneath all of the hair and grime was Derek's brother, Damon. When he finally got Damon semi presentable, he and Damon went over to Gary and Sharon's.

"Hi Dad," Damon said.

"It's been 7 years and all I get is a 'Hi Dad'," Gary snorted.

"You're too ugly to kiss," Damon laughed.

"Where the hell have you been for 7 years?" Gary asked after they'd hugged. "And what became of the kids?"

"Carrie took off with the kids before I could get there," Damon said. "I've spent the last 7 years trying to find them."

“Yes, and...” Gary asked.

“They are in Louisiana Dad,” Damon said. “You wouldn’t know them. Hell, I barely did.”

“Ok, so they’re alive?” Gary asked.

“All three of them,” Damon confirmed. “I tried to get them to come with me, but since I didn’t know if you were alive, they didn’t come.”

“How did you find me?” Gary asked.

“Pretty much by accident,” Damon admitted. “I mentioned your name in Roswell and they sent me here.”

“What were you doing in Roswell?” Gary asked.

“Cruising, Dad,” Damon said, “Just cruising.”

“Not looking for me, huh?” Gary asked.

“I thought you were dead, and Derek, too,” Damon explained.

“You got the cruising out of your system yet?” Gary asked.

“Well, yeah,” Damon replied, “But it would sure be nice if we could get the kids here from Louisiana.”

“Don’t worry about it Damon,” Derek replied, “We’ll go after the kids. But, they must almost be adults by now.”

“Britney is 20, as a matter of fact,” Damon replied, “But they’re still kids to me.”

“Can we just drive over to wherever they are, or do we need to go in force?” Derek asked.

“Carrie is somewhat of a Queen Bee down there and she was violently opposed to the kids coming with me,” Damon said, “Is that any help?”

“What do the kids want?” Gary asked.

“They wanted to come with me Dad, but Carrie wouldn’t let them even if I could have taken them,” Damon answered.

“Derek, could you see to the rescue of you niece and nephews?” Gary asked.

“Come with me Damon,” Derek said, “I need to get you checked out on an M16.”

o

Derek preferred to use the Humvees and he got the two Companies led by the Marines. There must have been something awfully intimidating about 400-armed soldiers driving Humvees equipped with TOW Launchers, Mk-19’s and Ma Deuces. They were back in 3 weeks with the ‘kids’ in tow. Gary was so glad to have his family together that he was walking on clouds. Ron was still looking on the Ham bands for Paula and his brother Robert. He’d learned earlier that Sheila and her husband hadn’t made it.

“Ron, why don’t we just go to Robert’s and see if he made it?” Gary suggested.

“Gar-Bear, it has been 7 years,” Ron said, “They’re probably dead.”

“But you won’t have any peace until you know for sure,” Gary said. “Besides, it not that far away. I don’t know why you didn’t go there years ago looking for Bob.”

“I guess I was afraid of what I would find,” Ron said.

“Come on, we’ll get Derek and some of those soldiers of his and go up Farmington way,” Gary insisted.

Robert actually lived in a community called Cedar Hill, just south of the Colorado border on US 550. At the end of their journey, they had mixed news. Robert and his wife had died during the summer of 2005 due to natural causes, but Paula and Mark were living in Robert’s home and they had 3 children. Ron felt bad about Robert, but he had had a really bad heart, so the news wasn’t unexpected.

On the other hand, he now had all of his kids accounted for except Scott, Paula’s brother. Ron hadn’t heard from Scott since 2003 when he got out of prison for bank robbery and neither had Paula. Scott had gotten off lighter than Ron had expected. He had all of the money from the robberies buried in his back yard and they recovered all but few thousand dollars of the money he had stolen. Ron didn’t know if they had given Scott a shorter sentence because they’d recovered the money or because Scott was just plain stupid.

Aaron, Bob and Jacob had brought in every decent doublewide they could find and had even managed to assemble a few before the snow came in 2011. Britney and her husband took one and Paula and Mark a second. Damon, Aaron and Eric took a third. With their families mostly accounted for, the three old geezers were pretty content. Clarence had tracked down his sister in Alabama and she was doing fine.

o

This wasn't the end of their story, by any means; it was just the end of round one. Round one had consisted of surviving the strike, dealing with a few bad guys and preparing for round two. Round two would prove to be far more difficult than round one, but they were superbly prepared.

Many of the original residents sensed, rather than knew, that they had missed something. It was like it was right there in front of their face staring at them, daring them to see it, but they were caught up in not remembering the past and thinking only of the future. All they would have had done is remember when they first came to Carlsbad Caverns...

"You know Ronald McDonald that we've been here at these caverns for 7 years and we've never seen the main Cavern," Gary said, "I always wanted to see it, so why don't we find someone in Whites City who used to work in the Cavern and get him or her to give us the guided tour?"

"You've seen one cave, you've them all," Ron objected.

"You're no fun," Gary said, "There's supposed to be some really pretty rock formations in the Cavern."

"Oh all right. You find a guide and we'll get everyone together who wants to see the rocks and do the tour," Ron gave in.

The men never gave a thought to the fact that 7 years earlier they had been fired on when they tried to enter the Cavern. Besides, no one would be there anymore; the last bunch had been the group in the northern caverns, right? And, 7 years, I mean really, who could live in a cave for 7 years without coming out? No one, but if Gary hadn't created such a paperwork nightmare accounting for their inventory, they might have noticed that they were short a lot of supplies, mostly food and a little diesel fuel.

The shortages had been noticed by some, when they transferred to supplies to the cavern, but they just adjusted the inventory records to match the actual inventory and had never brought it up. Inventory shrinkage was a common problem and had been since inventory records had been kept. Someone would get in a hurry and help himself or herself and then forget to generate the paperwork that went with the withdrawal. And, given Gary's penchant for perfectionism, it wasn't any wonder that the inventory records were off.

About half of the residents at Rattlesnake Springs wanted to do the tour and they gathered 2 days before Christmas of 2011 to see the sights. A tour guide had been located; a ranger from before the strike, and they were assembled at the Visitors Center prepared to make the tour. Ron led off, bold as you please, he wanted to get this over with. Kablam! The report of the rifle sent them all scurrying. Ron was down with a round in the shoulder.

The Rock – Chapter 8 – Bad, Bad, LeRoy Brown

Whoa!

*Well 'ole south side of Chicago
Is the baddest part of town
And if you go down there
You better just beware
Of a man name of Leroy Brown*

*Now Leroy more than trouble
You see he stand about six foot four
All those downtown ladies call him "Treetop Lover"
All the mens just call him "Sir"
And he's bad, bad Leroy Brown
The baddest man in the whole damn town
Badder than a-old King Kong
And meaner than a junkyard dog*

Ron Green was shot in the left shoulder. The shoulder wound would heal. But, Ron could have taught Leroy a thing or two about being bad. Over the course of his life, Ron had been shot, stabbed and had the crap kicked out of him. Ron wasn't 6'4" tall; but he was the meanest 5'5" package on the planet. And he was po'd. He hadn't wanted to go into that cave in the first place, either.

John set off the security alarms and Derek came running with a Mk-19 equipped Hummer and a tank. National monument or not, they filled the entrance of the main Cavern with a steady stream of Mk-19 fire and .50 caliber fire. When they figured that there couldn't be a soul alive inside of the Cavern, they entered cautiously. Everything was shot up and some of the rock formations were in a sorry state; but they didn't find a single body. In fact, the only thing they found was a single .308 cartridge casing.

One of the things they brought a lot of back from Ft. Carson was Claymore mines. They set up a heavily interlaced field of 12 Claymores and backed out of the cavern. This was going to require some careful planning before they checked it out further. Obviously, whoever was in the main cavern knew the place like the back his/her/their hand(s).

They had taken Ron to the Clinic and the doctor had taken him to surgery, cleaned and dressed his wound. The shot had been through and through, probably a FMJ round. Although it had missed bone, Ron had a couple of blood vessels torn up and would be out of action for a while. The doctor had used a local anesthetic but given Ron's state of agitation, he also gave him a strong sedative. If he hadn't, Ron would have surely gone hunting for whoever shot him.

o

They weren't in any particular rush to clean out that cavern; it seemed to spell trouble. After Christmas dinner, Aaron and Gary filled Derek in on the fact that 6 and 7 years earlier they had been shot at when they tried to approach the main cavern. Derek got over being angry that they hadn't bothered to fill him in on that piece of information. As far as Ron was concerned, he was chomping at the bit to kick some butt. That wasn't going to happen anytime soon. When you're 70 years old, your body doesn't heal like it did when you were a teenager.

After the first of the year, Derek got his company commanders to hand pick their very best men and women to run a sweep of the cavern. Altogether the force was about the size of a platoon. They started out by laying some suppressing fire from a machine gun and then they carefully entered the cavern. Derek had a detailed map of the cavern courtesy of a filing cabinet in the Visitor Center. Their first task was to disarm the Claymores to allow them freedom of movement.

"Oh crap!" Derek exclaimed.

"What?" one of his people asked.

"Where are the Claymores?" Derek asked no one in particular.

"Ain't no Claymores here boss," someone else said.

"There were a week ago," Derek explained, "We planted 12 of them with the trip wire triggers. Everyone back on out of here and we'll rethink this one more time."

The missing Claymores told them something about the people in the cavern. In order to disarm a Claymore, you had to replace the safety pins and follow a specific set of procedures. That suggested to them that whoever was in the cavern were familiar with Claymore mines and that probably meant military.

And, according to the map, there were a lot of places for them to set up ambushes. Worse; now, they had a dozen Claymore mines! If they used lights in the cavern, they would be announcing their position to whoever was inside. If they used night vision equipment, they might miss the trip wires. Talk about a lose-lose situation.

Derek wasn't about to put his people in that situation. He put the tank to good use and its 120mm cannon closed the entrance to the main cavern. National monument or not, Derek had responsibilities and he wasn't about to risk the lives of anyone digging out the people in that cavern. Then, he went back to the filing cabinet and got the complete set of carefully surveyed maps of the entire Carlsbad Cavern complex. It appeared to him and others that there were several interconnecting passageways between the main cavern and their north cavern complex.

One of those old Gunnery Sergeants told him that there might be unmapped tunnels connecting the main cavern and their cavern. He had suggested that they leave a sin-

gle, somewhat obscure tunnel open and block the others. They could count on the people in the main cavern trying to get into their cavern, he suggested, and if they left one passageway open, odds might favor the people in the other cavern using it to get out of the main cavern. So, they blocked all but one of those tunnels and set a guard on the remaining tunnel, 24/7.

o

It's time to introduce the people in the other cavern. They were six Army soldiers temporarily housed at the stockade at Peterson AFB. In the confusion surrounding the announcement of the pending strike back in 2004, they had somehow managed to escape from the stockade.

Some of them were well-trained soldiers and some of them just your average grunt. But, they had one thing in common, they were mean. They had managed to steal arms and ammunition and in the confusion leading up to the strike had made it to the main cavern. They had a fair amount of food and the like, but over the past 7 years had been foraging at night, stealing a little here and a little there. The new settlement at Rattlesnake Springs had proved to be a Godsend for them and they had taken a little here and a little there, but never enough to attract attention.

In was during this period of time that the gals finally brought Gary a list of the adjustments they had made to the inventory. Some of the adjustments made sense, like a missing part to a vehicle, but some did not. Gary couldn't believe that they could be off that much in their inventory of food. Their food was their lifeblood and every pound of flour; every container of vegetables and the like was accounted for very carefully. So, he took the information to Derek.

"What else are we missing besides food?" Derek asked.

"I can't be sure Derek," Gary replied. "The parts and such are probably just poor record-keeping, but we're off a little on the diesel fuel. It's not enough to be sure if were missing any or not, though."

"Hmm, this looks like enough food for 6 people for a year or 12 people for 6 months," Derek said.

"Better figure 6 people for a year son," Gary suggested, "The shrinkages have been going on for a long time."

Ok, we'll assume 6 people then," Derek said.

"How is the work going sealing off the main cavern from our north cavern?" Gary asked out of curiosity.

“We’re over halfway done, Dad,” Derek responded, “And I have guards stationed 24/7 at the tunnels we haven’t closed yet.”

“Are you sure you have identified all of the tunnels?” Gary asked.

“You can never be totally sure about something like that Dad,” Derek answered, “So we’re closing off all of the tunnels going north out of the northern cavern.”

“I’d feel better if we had a guard on the food, too,” Gary proposed.

“Ok, Dad, and do you want guards on anything else?” Derek inquired, a bit irked.

“No, that ought to do it,” Gary replied, not realizing he’d upset Derek.

“Here you go Dad,” Derek said handing Gary an M16.

“What’s that for?” Gary asked.

“You have the first shift of guard duty on the food,” Derek replied evenly.

“I’m too old for this crap,” Gary responded.

“It was your idea, so get to it,” Derek laughed.

Gary reluctantly took the M16 and headed for the north cavern. When he got there, he discovered that Derek already had guards on the food. Derek had made his point; from now on Gary intended to leave security up to Derek and John. He trudged back to the security office and gave Derek back the M16. His only comment was, “Butthead.”

Ron was feeling a lot better. His shoulder was slowly healing, but the better his shoulder got, the worse his disposition became. He wanted to take a Ma Deuce and guard the one tunnel they planned to leave open. Gary was able to dissuade him by squeezing Ron’s shoulder and Ron reeled from the pain. Well, maybe in a couple of weeks, he could go. Gary told Ron about Derek sending him to guard the food and Ron seemed to get the message. Better leave the security to the younger folks.

o

In the main cavern, the men had retreated to the farthest reaches of the cave, setting up the Claymores as they went. It was well into February before they ventured out of their hiding places. When they got to the entrance of the cavern, they discovered what all of the cannon fire had been about. The entrance was completely sealed. That was okay with them, they could always get out of the main cavern going to the cavern to the south where all that food was stored or out a tunnel to the north. Two of them went on a little recon and they discovered that the people had increased security significantly. They

were running low on food; however, they normally made a foraging trip about once a month. They began to check the tunnels to the south cavern and found all but one blocked.

“That’s obviously a trap,” the leader said. “I guess we’d better get our food from town.”

“Won’t they have higher security, too?” one of the men asked.

“Maybe or maybe not,” the leader said, “But it’s a hell of a lot less risky than walking into that trap.”

Derek’s maps of the main cavern were very detailed and they showed the tunnel exiting to the north. He could have blocked the tunnel off, but it was no immediate threat to them. They had the one tunnel to the northern cavern covered and he figured this was his opportunity to get to know his enemy. They would no doubt come out of the tunnel eventually.

When his guards reported that two men had come out and reconnoitered a little, he did nothing. There had to be more than two people in that cave. His patience was finally rewarded when around the first of March six men exited the cavern and headed towards Whites City. His people followed the men at a distance and the men went into Whites City, gathered up some food and returned to the cave.

Was that all of them, Derek wondered? He would have only sent half of his force on a scavenging trip, so were these six men the entire group or half of the force? All of that was beside the point, he decided. He had 6 sure targets. And, he couldn’t just leave them in the main cavern because what if there was an unmapped tunnel?

He didn’t want any of his people injured getting those bad guys either, so he set up two .50 caliber machine guns across from the north exit out of the main cavern and had the final connecting tunnel blocked off. As added insurance, they set up a motion detector about 50 yards down the trail and connected it to a bank of floodlights. It would be like shooting fish in a barrel. All they had to do now was wait.

About midnight 5 weeks later the floodlights lighting up startled the guards. The guards’ let loose with a volley of fire that no one could have lived through. They inspected the bodies and found that a man with a .308 rifle though wounded, was alive. They dragged him back to the clinic, but the doctor said he wouldn’t last long. Derek got Ron and asked him to question the man. Ron was pretty well healed up and he took to the task with relish. Before the SOB died on him, Ron had the whole story. There were only six of them, and everything beyond that was just a bonus. They next day, they sealed off the final exit from the main cavern and resumed a ‘normal’ life.

o

Into 2012, it was something of a repeat of the spring of 2005, with people once more

moving to the south. However, for the most part the people who relocated didn't have to fight for supplies. Invariably they had a truck and a trailer filled to the brim. They had been busy once they got back up north and had carefully selected what they would need. Remember, these people had already survived the strike and the summer long fighting in 2005. And, they had made friends before they returned north, so they had some place to go.

Occasionally someone would come along and apply for a home at Rattlesnake Springs. Since these people had already had to talk their way past one or more tank units, they were given every consideration. Questions ranged from 'Are you a veteran?' to 'What skills can you add to the community?' The folks were very selective and maybe 20% of the applicants were accepted. No one was made to feel unwanted and the residents found them places to live in the other four communities.

"We need to make another trip to Denver," Aaron said, "We need to get whatever diesel and propane we can haul back. Plus, some of those generators are showing some wear and we need spare parts."

"Anything else we need?" Ron asked.

"Florescent light bulbs," Aaron added. "But the main emphasis has to be on propane. Those space heaters are eating it up at a phenomenal rate."

"How many more of those 30,000 gallon tanks are there in Denver?" Ron asked.

"Not enough Ron, but we can hit every city between here and Denver," Aaron replied.

"Just be sure you bring back cradles for those tanks," Gary said. They ignored him.

The furnaces and hot water heaters consumed propane and there were 50 homes plus the community center. However, the space heaters ran from the small 22,000 BTU units up to the 300,000+ BTU units. They probably could have calculated their consumption, but it would have taken a month of Sundays. Besides the space heaters all had thermostatic controls and they only ran when they needed to. They still had a fair amount of propane, but the tanks wouldn't fill themselves. This would be another summer long project. It was a mean feat moving those 30,000-gallon tanks, too, but they wanted enough of everything to last them for a very, very long time. Food wasn't a problem anymore as long as they had diesel for the generators and propane for the heaters.

"I'm all for a trip or two to Denver, Aaron," Ron pointed out, "But how do you propose to get that diesel fuel to be useable? We have almost no PRI-D left and that fuel is old."

"We could go to Texas to the manufacturer," Aaron suggested. "We would use two box trailers and semis. Surely we could come up with PRI-D by the drum in Houston."

"What makes you think they are still in business?" Ron asked.

“I have no idea whether they’re in business or not, but if you have a better idea, let’s hear it,” Aaron countered.

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For those who don’t know, the ratio of PRI-D to diesel is one gallon of stabilizer to 2,000-gallons of fuel. There also several different PRI products, running the gambit from fuel oil stabilization to gasoline stabilization. When Ron had selected the cavern that they converted to a fuel bunker, he had passed on a larger chamber. They all talked about it and decided to convert the larger chamber to fuel storage also. They would need more steel plate to line the chamber, concrete and welders. The plan of action they decided on was to try and get the PRI-D while the rest of them hauled diesel fuel and propane tanks back to Rattlesnake Springs.

Assuming that one day they might need a medium of exchange, to actually purchase something, as opposed to scavenging it, the folks had been pretty through about recovering precious metals from Albuquerque and Denver. If they could, they would buy the PRI-D, if not, and they could find it, they would take it. They sent one company to accompany the folks going to Houston and began their many tasks.

While the contractors busied themselves converting the second chamber to fuel storage they began to bring the propane tanks and diesel fuel home. Many things were easy to come by like steel plate, welding rods and the like. As quick as the concrete dried, they had a half dozen welders working in 3 shifts to line the tank. By mid-July there were ready to begin transferring fuel.

They had 18 more 30,000-gallon propane tanks and a crane to help set them in the cavern on an improvised trailer that they could use to move them into place. Their biggest problem was transferring the propane from Denver and later Albuquerque. All they could come up with was a dozen or so 3,000-gallon propane delivery vehicles and they had to move the propane and tanks in stages.

First, they emptied the tank into the transports; and then they moved the tank and set it into place; and finally, they had to refill the tank. They first topped off their existing tanks and kept the transports running 24/7. A round trip took about 6 days and by the time the first snow came, they only had 15 tanks moved from Denver. But, they just kept going and almost got caught in a blizzard on the last trip back from Denver.

They were short several thousands of gallons of propane, but Albuquerque made up for the shortage. They ran as long as the weather permitted and had not only the 33 30,000-gallon tanks filled, but had distributed the 12 transports among the 4 communities for their needs. They ran the diesel transports 24/7 once the tank was completed and now had close to a lifetime supply of diesel fuel. They also distributed the tankers among the four communities and they had more than enough diesel to use.

They got the light bulbs, too and the trip to Houston was a great success. The company was still in business, there was a huge demand for their product given that fuel production was so limited and most everyone was restoring old fuel. They had to wait for their turn, but eventually their gold and silver got them a trailer of PRI-D and a second trailer PRI-D and PRI-G, all in 55-gallon drums. Maybe, they figured, they had a 15-year supply of stabilized diesel and about 100,000 gallons of stabilized gasoline.

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The Ham radio reports were indicating that severe weather came as far south as Kansas. They had gotten out of Denver just in time. And, if the radio reports were to be believed, some people must have gotten tired of the years of back breaking work it took to stay alive and were resorting to violence to keep themselves going. There weren't many reports, just one here and one there. The closest was in El Paso and that was a little too close for comfort.

"So, Derek," Gary asked, "What do you make of that report out of El Paso?"

"I'm not sure what to think about that Dad," Derek said, "I moved some more Abrams to south 62/180 and I doubled the tanks on west 82 and 70. But you know, we have some tanks down too. It's like I always told you, those turbine engines aren't worth a crap."

"I thought you said they had a replacement engine?" Gary asked.

"You mean the LV100-5, for the Crusader howitzer and a future M1 upgrade?" Derek said, "Fewer than a dozen LV100-5 prototypes were built before the Crusader program was cancelled, taking the LV100-5s with it. Testing of these engines was not completed but the program expected to reduce the number of parts in the engine by 43 percent versus the AGT-1500 and improve the efficiency by 30 percent. So we stuck with these engines."

"Can you rebuild them?" Gary asked.

"Some of them have been rebuilt a dozen times or more already Dad," Derek explained.

"That's not what I asked. Can you rebuild them?" Gary persisted.

"Not really, they'd have to go back to the depot," Derek said.

"So, take them back to the depot. All of them and get some of those M1A2SEPs," Gary said. "Who knows, maybe you can get some of M1A3s." Gary suggested.

"They were only a rumor," Derek said, "There aren't any of them."

"Bull, Derek, I read an article on the Internet back in 2004 that said that the M1A3 had

the LV100-5 engine. If I remember right, it was basically a M1A2SEP with the new engine and better cannon (L-55)," Gary insisted.

"If we pull out all of tanks and take them to Ft. Hood, that will leave you defenseless," Derek insisted.

"So, load up half the tanks and trade them in," Gary persisted. "If I'm right, you won't have any more engine problems."

"That will leave you short on tanks," Derek said, "We have 6 platoons of four tanks plus two headquarters company tanks. I have most of them deployed. If I only leave you with 13 tanks, you could be in for trouble."

"Kid, if I wanted to debate with someone, I'd join a debating society," Gary cut off the discussion.

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Off they went, Derek totally convinced he would be returning with the same 13 tanks. But, when they got to Ft. Hood, the place was like a ghost town. There were 32 of the new M1A3 tanks, too, some still partially wrapped up with shipping materials. He didn't realize that they were the A3 models until he checked the engine compartment. Inside, the tank looked just like the M1A2SEP.

There wasn't any shortage of the M1000 HET transports for the M-1 Abrams tanks, so Derek loaded up all 32 tanks, all the 120mm rounds they could carry and headed back to Rattlesnake Springs. Now he just had to figure out how to deal with the new engines, and that meant reading the Field Manual.

And, they needed more of the JP8 for the engines. The fuel tanks hold about 500 gallons each and Derek had only brought 32,000-gallons of fuel, just enough to fuel the units twice. He kept the M1000 HET transports and used semi tractors and lowboys to return the rest of his used equipment. When he returned a week later, he had just shy of 800 thousand gallons of JP8. Not only did he have new tanks, he had munitions, fuel and transports. Now he just needed a battle.

It was strange about that promotion to Lt. Col. too. Once Bush had issued the Executive Order, they'd never heard another word. No paychecks, no communications, nothing. Then Bush had up and resigned and had gone to Crawford. They tried numerous times to contact the ranch in Crawford, but after they'd had received delivery of the Executive Order, it was as if Dubya had dropped off the planet. That was ok; Derek figured the 32 new tanks would about cover their back wages, with interest. Come to think of it there never had been an election to elect a new President, and Derek wondered if there was even a US Government anymore.

"I told you they brought out the M1A3," Gary said, "Was I right or what?"

“Are you ever wrong?” Derek kidded. “You three old farts have never admitted to a mistake as long as I’ve known you.”

“We forgot to tell about getting shot at from the main cavern, does that count?” Gary asked.

“Barely,” Derek grinned.

“Well, before you accuse me of not telling you everything,” Gary said, “You should know that all hell has broken loose in El Paso. I don’t know anything specific, mind you, but from the radio traffic, it appears that some paramilitary group is trying to take over the town.”

“And I suppose knowing that, you let me go after the new tanks, huh?” Derek retorted.

“Of course I did and now you have 32 brand new tanks instead of 26 pieces of junk,” Gary said. “Besides, I don’t figure that we have much to worry about until spring.”

“Good,” Derek responded, “Then I’m going to send a company of people over to Ft. Hood and pick up as much matériel as we can carry. Meanwhile, I’ll get the other three companies busy training everyone in the use of the M16’s.”

“That,” Gary admitted, “Might not be a bad idea.”

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“What the hell’s the hubbub?” Ron asked Gary. “New tanks, 50 tankers of fuel, and people are training like we have a fight coming.”

“We just might fellas,” Gary responded to Ron and Clarence, “There’s been a lot of radio traffic out of El Paso the past couple of months and it doesn’t sound good.”

“It’s been 8 years since the strike,” Ron grouched, “You’d have thought we’d have had a lot more trouble than we’ve had. What have there been, 4 incidents in 8 years?”

“Let’s see,” Clarence said, “We had that bunch out of El Paso, the bunch from Albuquerque, those folks in the northern cavern and the 6 guys in the main cavern. You’re right Ron, 4 incidents.”

“And none of those incidents involved more than 100 people,” Ron continued, “If a big group hits us we could be in a world of hurts. I’m too old for this crap.”

“What we really need is some artillery with those new beehive rounds, the M546, I think they’re called,” Gary said.

“Don’t they make a round like that for the tanks?” Ron asked.

“I have no idea Ron,” Gary said, “I’ll have to ask Derek.”

The Rock – Chapter 9 – Sushi

“So, what kind of rounds do you have for those tanks of yours?” Gary asked Derek.

“We have the normal load out of M829A3 and M830A1,” Derek said.

“Speak English would you?” Gary chided Derek.

“Dad the M829 is the discarding sabot ammo and the M830 is the HEAT round,” Derek explained.

“Anti-armor ammunition?” Gary confirmed.

“Yes,” Derek agreed.

“That won’t do much good against people, Derek,” Gary observed, “Now the guys were saying that we needed to get some 105mm howitzers and a bunch of those beehive rounds. Ought to have some airburst projectiles, too.”

“I’ll get some of the people with artillery backgrounds to make a trip back to Hood and get you your artillery,” Derek responded. “I think we’ll look for some of the M1028A1 rounds, too for the tank cannons.”

“What kind of round is that?” Gary asked.

“Canister, Dad,” Derek explained, “They developed it during the 1990’s. Each shell has 1,100 tungsten balls and the maximum range is 5,000 meters, although it is definitely better close in.”

“Sort of like a beehive round, huh?” Gary summarized.

“Yes and no,” Derek said, “It has a lot fewer projectiles, those 105mm beehive rounds have 8,000 flechettes, but the crew of the gun is exposed. I think we should deploy our force with the tanks in front, backed up by the arty. Using those beehive rounds would be a last ditch thing.”

“You think you can make this all happen in a month or less?” Gary asked.

“What’s the hurry?” Derek asked.

“I don’t like the sound of the news out of El Paso,” Gary said.

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Talk about a haul. The company came back from Hood with 3-dozen M119A2 105mm cannons, enough shells to fight WW III plus close to 1,200 rounds of the Canister ammo

for the 120mm cannons. It also appeared that there were other areas of unrest around the country, but they concentrating on that bunch in El Paso. As the weather began to warm, the radio traffic out of El Paso seemed to fall off and stop altogether. The folks there in southern New Mexico took this as an ominous sign.

Derek was worried what would happen if the bad guys got to Ft. Bliss and cleaned the place out of weapons. While Ft. Bliss was primarily an Air Defense headquarters, the base wasn't without resources and who knew what equipment had been there around the time of the strike? For sure, if they got their hands on some TOW missiles, he was up the Creek.

And now all they needed was an Air Force. Yeah, right and maybe a space shuttle equipped with a Mark 1 Mod 0 Ray Gun, too! Derek had what he had and would have to make do with it. He knew that most of the units at Bliss were Patriot batteries, but he also knew that a Marine Corp unit was stationed there as part of some Task Group or something.

He decided that they had better employ forward observers so they would know if they were up against TOW's. The other problem was where would the people come from? They actually had 2 choices, across and up on US 62/180 or up 54 to the US 82 junction, then across to Artesia. "Decisions, decisions," he thought, "Must be why real officers get the big bucks."

Of course Derek could always talk to Gary, but Gary hadn't been feeling well the last three days and that usually meant he was off his feed and lacking a sense of humor and the social graces. He could just imagine how Gary would react if he said, "Now all we need is an Air Force!" No, he would handle this one on his own. It would mean splitting his command, half to US 82 and half on south US 62, but if they had enough notice, they could bring up the other unit to back the one under attack. He needed intelligence, and hit upon using Damon and that Harley of his.

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"Damon, how about you take your bike and head over to Ft. Bliss and check out the bad guys?" Derek suggested.

"How about you kiss my butt," Damon retorted.

"I'm serious, bro, we need someone to get us some intelligence, I'm operating blind here," Derek protested.

"I was too, but I'll meet you half way," Damon said handing Derek the keys to the Harley. "Use the bike, but if you get one scratch on it..."

Derek wasn't one to look a gift horse in the eye. So far as he knew, Damon never let anyone near his bike. He took the keys and got his company commanders on the horn

looking for a good rider willing to volunteer for a dangerous mission. He got his volunteer, a young woman in her thirties, Dawn, who was cute enough, but who seemed to have a hard edge. Derek gave her instructions and sent her on her way using the northern route. He didn't have to wait long for an answer.

Dawn was back within 10 days. She estimated the force at between 4 and 5 thousand. They had Hummers, which were equipped with both Mk-19's and Ma Deuces. They also had two Hummers equipped with dual missiles, TOW's, she assumed. They had buses to haul their troops, trucks to haul their munitions and looked as if they were getting ready to move out. She said that unless she misinterpreted something, they appeared to be splitting their force. A large contingent had head out south towards El Paso and vehicles were lined up along US 54 pointed north.

Derek decided they really did need an Air Force. Something like 4 Apache Longbows equipped with 16 Hellfire missiles each would have been just the ticket. But he didn't have any and didn't have any prospects of getting any. And out of the communities that now had a combined population of over 40,000, they had only a small defense force of 1,200 or so. They had armed and trained the population, so they had maybe 25,000 or more capable of bearing arms and they were all equipped with M16's and ammo. The more dangerous munitions like the grenades, AT-4s and the like were reserved to the security forces.

Dawn returned Damon's bike and keys to him. They struck up a friendship and visited late into the night. Well, we assume that they were visiting, anyway. Derek was burning the midnight oil, too. Other than knowing that he would be forced to divide his forces, he still could have used more information. But, you make do with what you have, don't you?

It was decided to place 9 artillery pieces on each side of 82 west and 9 pieces on each side of 62/180 south. The tanks would be in front of the artillery, to cover any forced withdrawal. His primary concern was those TOW equipped Hummers. The ammunition he had for the tanks had a maximum effective range of 4 km. The TOW's had a maximum effective range of 3.75km. His artillery had a maximum effective range of 11.5km. Clearly the artillery would have the primary responsibility in taking out the TOW equipped vehicles.

They didn't have one hell of a lot of time to get ready for the battle, but took the time to camouflage the positions. Until the tanks fired their guns, they should escape notice by the bad guys. He put out forward observers to direct the fire of the artillery and settled in to wait for the enemy. If he'd overlooked anything, it was a little late now to worry about it. The tanks were equipped with 12 HEAT rounds and 30 canister rounds. Positioned as they were, they could essentially back straight up to the artillery positions and the combined force could lay down a barrage of canister and beehive that would decimate the enemy. But first, they had to take out the enemy's vehicles.

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Dawn had failed to identify the LAV-25's fielded by the enemy force. They only had a dozen, 6 for each attacking element, but the LAV-25 was a pretty good fighting vehicle. Equipped with a 25mm M242 Dual-feed Bushmaster Automatic gun. If the LAV's had a shortcoming, it was in the range of their ammunition, about 2km, and the thinness of its armor compared to the Abrams. But, as a fighting vehicle, it beat the hell out of an armored Hummer.

The first contact with the enemy came from the south. When the forward observers reported the LAV's, Derek issued immediate orders to ignore the vehicles; the Abrams would take care of them. Artillery fire was to be concentrated on those TOW equipped Hummers. They began to lay down fire at about 6 miles range, and though it took the inexperienced gunners a lot of M1 rounds, they eventually did enough damage to the TOW equipped Hummers to render them ineffective. The enemy halted their advance and dismounted their infantry force. The observers reported, before they pulled back, that they were a motley crew, but well-armed and had what appeared to be AT-4's, among other things.

At about this same time, the northern defense had their first contact with the enemy. This group of gunners were a little more skilled than the gunners to the south and they blew the TOW equipped Hummers to piles of charred debris. The northern enemy contingent halted their advance and dismounted their troops. This slight delay allowed Derek's forces to switch from the contact fuses to ammo with proximity fuses.

There is something awfully unsettling about artillery barrages, especially for the uninitiated. However, it probably doesn't get much better with experience, either. The enemy finally got their troops moving forward in the ongoing artillery barrage. It seemed to be getting lighter as the opposing force expended its rounds.

Derek advised his people to lighten up the barrage and let the enemy advance. Now that they were facing infantry forces, direct fire seemed to be the better option. Eliminate the enemy vehicles at about 3km, he told them and if the enemy was still foolish enough to come on, back the tanks up to the artillery and prepare for the assault with the anti-personnel munitions. Derek had no intention of exposing his fighting forces. If they got down to an infantry duel, they just could lose.

The tanks opened up with their HEAT rounds at about 3,000-meters and all of the enemy vehicles went down amazingly quick. All of the defenders backed their tanks up to the artillery positions and made ready for the final assault. The 120mm cannons and the M119A2's were reloaded with the antipersonnel rounds and they waited.

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The enemy force had never before run into such resistance. They figured they were bulletproof, as it were. They hunkered down when the last of their vehicles had been taken out to decide, among other things, whether to continue the advance or call it quits and

find a softer target. "He chose poorly," the Grail Knight had said in *The Raiders of the Lost Ark*. These people chose poorly, too. Most of them weren't old enough to remember Vietnam and the beehive rounds. If the US military had used them in any subsequent conflicts before the strike, they hadn't heard of them. They assumed that the enemy they faced had only artillery and infantry and the artillery had seemed to run out of ammo. So, after much discussion, they decided to move forward.

They didn't just stand up and march forward like a herd of animals either, they moved in twos and threes and fours, slowly making their way toward the defenders. It was almost 2 miles to the defenders positions and the day passed as they moved forward. Slowly, steadily they advanced and they were meeting with no further resistance from the defending force. With the passage of time, they became confident and then over confident and the last half-mile they were marching along erect, engaged in conversation.

Derek had given orders for his people to let the enemy get within 300 meters before attacking with the canister and beehive rounds. The tanks had been refitted and now only had 42 canister rounds and a large pile of the beehive rounds lay by each of the M119A2's. The Hummers with the Ma Deuces and Mk-19's were interspersed among the cannons. Everything lay behind a curtain of camouflage netting and when the tanks had pulled back, they had dragged their netting with them. The enemy infantry was within 300 meters of the defenders and didn't have a clue. That was the trouble with most civilians who got their military experience from Hollywood films. Real life was never quite like the movies.

"Fire." The tanks, artillery and infantrymen and women opened up on the advancing force. The fire continued for about 8 minutes until all of the tanks had exhausted their canister rounds. The story was the same on both fronts; varying only by minutes in the time they opened fire. The tanks just about met their maximum rate of fire of 6 rounds per minute and the M119's nearly matched them. In those 8 minutes, about 1,320 canister and beehive rounds had been fired and the infantry had all but exhausted their magazines of 5.56mm ammo. All there was on the ground in front of the defenders was a pile of human flesh, sushi, some called it.

The defender infantry hastily reloaded their magazines and walked among the fallen enemy, dispatching the very few who had survived the fusillade. It had taken them a matter of hours to defeat the enemy. It would take them weeks to scrape up the remains and bury them. Injuries among the defenders? Nothing worthy of a Purple Heart and few that that required more than a Band-Aid. It was a highly successful campaign.

Although the bodies were buried in mass graves, someone had a 'cute' idea. They took some 1"x12" planks and fashioned them into round topped grave markers. They wasted a lot of lumber constructing those 6,000 markers, but what the hell. Each marker was painted white and numbered from 1 to 6,000. Fake graveyards were built on west US 82 and on south US 62/180. Each bore a sign topped with the words, "Butthead Hill" and carried the message, "Here lie the remains of the 3,000 Buttheads who tried to take us on." They salvaged what little they could from the attackers, mostly M16's and ammo

plus the contents of the trucks and piled the rusting equipment into a tall mound near each graveyard.

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“Well, there’s nothing like advertising,” Ron said as he viewed the completed graveyard on south US 62/180.

“It seems like a waste of good materials to me,” Gary opined.

“You know that we got pretty lucky Gar-Bear,” Ron said “What if those SOBs had tanks like ours?”

“Ain’t any tanks like ours,” Gary protested.

“An M1A2SEP is exactly the same tank as those M1A3s, except for the engine and gun,” Ron said, “At least that’s what Derek told me. What if they’d had some of those?”

“What I don’t understand is why they attacked us in the first place,” Clarence said, “I mean it’s not like we advertise in a newspaper about this community.”

“I’ve been thinking about that Clarence,” Gary responded. “We’ve had a salvage operation running for years and there’re a lot of people around the area that know where we’re from; that plus the fact that we actually paid gold and silver for those PRI products. Maybe someone got the idea that we had something worth risking dying for to get at.”

“We don’t do we?” Clarence asked.

“It all depends upon how you look at it pal,” Gary continued. “We don’t have much gold or silver left; we didn’t have all that much to begin with. On the other hand, we have over 3 million gallons of stabilized diesel, just shy of a million gallons of propane and enough food to feed everyone in the area for 5 years.”

“I thought we were good scroungers,” Ron said, “But that Aaron and his pals from Denver make us look like a bunch of amateurs. Hell, even though stuff is wearing out, they have repair parts and even replacement units to last us for years.”

“How much longer do you think this cold is going to last?” Clarence asked.

“If it were a real Ice Age, about 10,500 years Clarence,” Gary said, “A lot longer than we’d care that’s for sure. But I don’t think this is a regular Ice Age. I have no reason to believe anything, really, but in my humble opinion, this is a freak event that relates back to the strike in 2004. There isn’t an Internet to go out on and find out what scientists think, you know. Hell, I don’t even know if there are any scientists left.”

“That’s encouraging,” Clarence frowned.

“You remember the Carl Sagan guy?” Gary said. “He predicted a Nuclear Winter after a major nuclear exchange back during the cold war. We didn’t have a nuclear war, but the amount of dirt thrown into the atmosphere must have imitated one pretty well. I’d speculate that a lot of greenhouse gasses were thrown up too. I saw some program about Nature healing itself a long time ago. I’m guessing when the healing is done; things will go back to normal.”

“Well, when will that be?” Clarence pressed.

“It will either be in our lifetime or it won’t,” Gary laughed. “If it’s during our lifetime good and if it’s not, who cares?”

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Clarence walked off mumbling to himself. Gary was a wealth of non-information. There was still a little summer left and the folks ventured forth to replenish their supplies. Four trips to Albuquerque with the LP delivery vehicles topped them off and left the other 4 communities with a winter supply. They didn’t need a whole lot of diesel and they simply topped off their storage bunkers and left the communities with the fleet of filled tankers. One company made a trip back to Ft. Hood and brought the last of the munitions for the tanks and cannons. Some seemed to be missing, they said.

Derek and his commanders sat down and did an after action analysis of the battle they’d fought. They done everything just about perfect, all things being considered, but what if they hadn’t had forewarning? The thought of having some Apache Longbows nagged at Derek. Or, even some Kiowa’s to use for forward observation. Hell, he’d even take a Huey if they could find one and someone who knew how to fly it. He wasn’t expecting any more trouble, but the better prepared they were, they better off they would be if TSHTF.

How do you get a squadron or two of helicopters in a TEOCAWKI situation? It was 2013; just a few months passed was the 9th anniversary of the strike. To the best of their knowledge there weren’t any newspapers to advertise in, so Derek put out a call on the Ham radio channels seeking pilots and mechanics for Apache helicopters. He didn’t have any Apaches, but he had to have pilots and mechanics before he worried about the helicopters. There were all of the Apache AH-64D’s at Ft. Hood that he could ever use. As far as that went, there were also a lot of the OH-58D Kiowa’s. The D model could use the Hellfire modular missile system, too.

Derek was counting on the phenomena that people of like interests tended to congregate. He figured that if he could find one pilot, he would have a whole group of them and if he could find one mechanic, he would similarly have a whole group of them. They might not all be in one place, but he was willing to bet they would be in touch with each

other. Derek should have spent time in Las Vegas, back when there was a Las Vegas, he would have made a fortune.

This winter was the same as the previous, so Gary went to Clarence and suggested to him that they may have turned the corner. Just as soon as the winters abated, he said, they could consider moving on to 'greener pastures'. Although, as far as Gary was personally concerned, the pasture right here in Rattlesnake Springs was green enough for him. It was just an expression; there sure as hell weren't any green pastures here in southeastern New Mexico. Snakes, lizards, and cactus, but no green pastures.

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Derek took a company of his finest over to Ft. Hood to meet with the pilots and mechanics he'd made contact with. He'd ended up with enough men that they could field 8 Apaches and 4 Kiowa's. Munitions weren't a problem, provided that they were still good after sitting around for God knows how long and given the maintenance problems with the Apaches, there seemed to be plenty of spare parts. They kept back full combat loads for the helicopters and trucked the remaining munitions back to Rattlesnake Springs. That storage building that they had moved from inside the compound some years back was filled to overflowing with tank, cannon and helicopter munitions. Someone decided that that wasn't the brightest idea they'd ever had and the folks back at the Springs reopened the main cavern to be used as a munitions bunker.

Along about the 4th of July, the helicopters arrived and did a flyby over Rattlesnake Springs. They had decided to base the air unit at the airport in Artesia. People from the Springs drove up to the airport and greeted the airmen and hauled them back to the Springs to enjoy the picnic.

Derek and the last of his troops didn't arrive back until the next day, having awaited the departure of the last chopper and then driving straight through. The three old geezers went around and met the pilots and gunners from the Apaches and the two crewmembers from each of the four Kiowa's. Ron had walked up to one of the men and said, "Mister, my name is Ron Green."

Imagine his surprise when the man said, "You don't have to call me Mister, mister, my friends just call me Hank." Ron never did get the guys last name. You don't suppose it was Williams, do you? (song by David Allan Coe)

This summer was marginally longer than the summer of 2013. El Paso Ham operators were back on the air wondering what had become of the bad guys. Gary and his crew of radio operators were quick to pass on the information about the battle of 2013, hoping that any other would be bad guys would be listening to that communication. It paid to advertise, you know.

Derek had a whole new set of concerns. Between their previous trip to Ft. Hood and this last trip, about 40 of the M1A2SEPs had gone missing. He didn't give a red rat's hind

end about the missing tanks, except that it nagged at him. A detour to an airport got him plenty of JP8, so there wasn't any fuel problem. But, if those bad guys from 2013 had had tanks, the battle might have been different. He figured he still had one leg up though, now that he finally had an Air Force with 12 helicopters.

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The downside to advertising is that one sometimes provides information to one's competitors. Back in the 1950's Ford Motor Company brought out the NAA series of tractors. Gary's father had been a Ford tractor dealer there in Charles City, Iowa and the town was also home of the Oliver Manufacturing Company, a competitor.

A representative from Oliver had gone to Gary's father and paid full retail price for one of the new NAA Ford tractors. Gary had never quite accepted his Dad's explanation that if he didn't sell them one, someone else would have and he might as well have the profit on the sale as the next guy.

Ford had almost taken away his father's dealership rights over that one but a fast talking lawyer using terms like restraint of trade had ended the dispute with Ford. It was kind of funny, too because 5 years later Ford named his father one of several dealers of the year.

That was the year that Gary got to meet Irving Wallace, when Wallace came to interview his father. At the time, Wallace was living in Clear Lake, Iowa and working on a book titled "The Prize," having just finished his previous book which was well received. Somewhere in all of his junk, Gary had an autographed picture of Wallace, supposedly taken in the Amazon, with Wallace holding a shrunken head and surrounded by 'natives'. To tell the truth, Gary had seen the movie "The Prize" but had never read a single one of Wallace's books. He sometimes wondered if Wallace had based a character on him. Gary didn't know that when they moved to LA, Wallace lived there too.

Anyway, back to the downside of advertising. By extension, in this case the advertising told the bad guys where you were. Of course you never show your whole hand when you advertise, so no one knew about the 32 tanks and the 36 artillery pieces. Neither did they know about Derek's Air Force. Which seems like a good point to mention that they test fired some Hellfire missiles and they worked just fine. Anyway, the bad guys with their 40 M1A2SEP tanks knew just where to look for trouble, right there in southern New Mexico.

They figured that there must be something there in the Carlsbad area worth protecting and they were, after all, very well equipped. So, along about mid-September 2014, they decided to pay a little visit to the folks in the Carlsbad Caverns area. There were only about 400 of them, give or take, but they had the tanks and armored Ma Deuce equipped Humvees. They were going to kick butt and to hell with the names!

Those missing tanks bothered Derek a lot more than he let on. Consequently, he kept

two Kiowa's flying during daylight hours and two Apaches during the nighttime. The wear and tear on the equipment had it compensations. It minimized the amount of training flights and gave them a security blanket. They had pulled the tanks back, but had just covered the artillery pieces with tarps to protect them from the elements. The arty was registered and moving it would mean more work. The camouflage they had used had remained in place and had been kept up to a degree. Which turned out to be all well and good, because one night during mid-September, Derek was awakened at zero dark thirty to the news that one of the Apaches had spotted 'about 40' of the M1000 HET transports loaded with Abrams on US 285, just south of the state line.

Derek put everyone of full alert and got the Kiowa's and other Apaches airborne. He had the two that had been flying RTB and refuel. Then, he ordered all 32 tanks to their southern exposure on US 285. They either went down US 285 (Northern units) or across on state route 396. They were ordered to form up in Malaga. As he got more information, Derek ordered the helicopters to assault the M1000's and get the tanks before they hit the transports. They caught the bunch on US 285 just after it crossed the Texas border. It wasn't much of a fight, to tell the truth. The missiles were the latest version, the AGM-114K Hellfire II. And they had none of the afflictions of the earlier versions that damaged the launch platforms. Forty missiles took out 40 tanks and the 30mm cannons took care of the M1000's and Humvees.

The Abrams kept on rolling and came upon the carnage. They dismounted from the tanks and used their M-9's to 'clean up the garbage'. While all of the tanks were damaged and unusable, they called for the 32 M1000 transports they had so they could transport the tanks back and scavenge for usable parts and munitions. They spent the rest of the month constructing Butthead Hill number 3 and erecting 400 fake headstones. They decided not to mention this latest conflict on the Ham radio network; maybe advertising wasn't such a good thing after all.

When the winter came later, Gary had another talk with Clarence.

"I think we're beginning to see the end of it, my friend," Gary told Clarence.

"The end of what?" Clarence asked.

"I'm trying to tell you that the summer was longer and winter came later, that's all," Gary explained.

"I knew that," Clarence grinned, "But does that mean the Ice Age is over? It barely got started."

"It will probably trail off over the same period of time it took to come on Clarence, but yes, I'd say it's over," Gary smiled back, "So where are you going to move to?"

"Nowhere," Clarence answered.

“I thought you were chomping at the bit to get out of here?” Gary retorted.

“No, if you remember all I ever asked you was how much longer you thought the cold was going to last. And you went off on some kick talking about Carl somebody and Nuclear Winter,” Clarence shook his head. “You know sometimes you’re a real ‘expert’.”

“Huh?” Gary responded.

“Ex spurt,” Clarence said, “You know; an old drip under pressure!”

“I didn’t have to come over here to be insulted,” Gary laughed, “Ron does enough of that. I’m leaving before you come up with more old jokes.”